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A COMPENDIOUS ENGLISH GRAMMAR.



GRAMMAR, in any language, is that art or science that teacheth the true and proper use of letters, syllables, words and sentences. And tho' several rules and observations, applicable only to one particular speech or tongue, are different from those of another, yet such as concern the general relation, that things have to their modes, qualities, motions or passions, are exactly the same in all the languages in the world; for any name, quality &c. in the English language is the same in any other, though expressed in a different term. From whence may be perceived, how far the generality of people are mistaken, in the notion they have, that it is absolutely necessary for all young persons to read the Latin, or Lilly's grammar, before they can attain to a right understanding of the English: for all the grammars of the Latin tongue are mostly employed to teach the various terminations, &c. of the flexions, modes, formations, and words of that language, a matter which no way concerns the English. But there are some few general rules in that and all other grammars that may be applied to the English, or any other language whatever.

I shall not here enter into a critical dissertation upon each letter, nor divide them into vowels, consonants, mutes, liquids, &c. nor shall I divide the language into eight parts, as is generally done, but into four, *viz.*

NAMES.	AFFIRMATIONS.
QUALITIES.	PARTICLES, or the manner of words.

Names express the things themselves, *i. e.* every thing that is the object of our several senses, reflection, and understanding: which conveying some certain idea or image to the mind, want not the help of any other word to make them understood: as when we hear any one say, *a man, a horse, virtue, vice, &c.* we perfectly understand what he means.

Names express the things themselves, you cannot therefore put the word *thing* after them thus, *man thing, virtue thing, &c.* without making nonsense.

They admit of *a* or *the* before them, and *an* when they begin with a vowel.

There are two sort of Names, Common Names are such as agree to, or express the whole species; as the name *horse* signifies *my horse, your horse*, and all the *horses* that are.

Proper Names distinguish particulars of the species from each other, as *Cæsar, Pompey, Cato*, distinguish those men from the rest of mankind. The same holds of the proper Names of *cities, towns, mountains, rivers, countries, &c.*

Qualities are the manners of Names, or things expressed by them, as *good, bad, round, square, &c.* For example: the being of *wax*, is the substance of *wax*, or *wax* itself, without regard to any form or colour, and is what we call the name, the roundness, squareness, &c. of the figure are the manners of the being; as to be ignorant or knowing, are the manners or qualities of our being: thus we say a *good, bad, black, white, &c. horse*; *horse* is the name, and *good, bad, black, white, &c.* are the qualities of that name.

The 3d general head is the Affirmation, under which term the existence, action, or passion of the subject is affirmed, as, *the black horse runs, the common-sewer stinks, the young child cries*. Here *black, common* and *young* are qualities, as expressing some mode or quality of their subjects or names, *horse, sewer, and child*; and the words *runs, stinks, and cries* denoting the several actions of their subjects or names. It is usual to call these

by three different appellations, viz. *substantive*, *active*, and *passive*; those that are found to signify the being or existence of any thing, as *I am*, &c. are termed *substantives*; those that signify the acting or doing of any thing, as *I see*, &c. are termed *actives*; where passion or the suffering of any thing is signified, as *I am seen*, &c. they are *passives*.

The 4th class of words I call by the general name of Particles, which are occasionally made use of to make the sense of the speaker more full, clear, and intelligible, by expressing the manner, or other circumstances of the other words, either by connecting them together, or shewing the manners or qualities of them; viz. *John and Mary strive earnestly*; here, *and earnestly* are *particles*; and, joining the two names *John, Mary*; *earnestly* shewing the mode of their striving.

A substantive has what is called two numbers; the one expressing only some one single thing of a sort or species, as *a man*, the other all above one, as *men*, viz. two, three, twenty, a thousand, &c. and this is called the plural number. The singular number is commonly distinguished by *a*, *an*, or *one*; as *a horse*, *a man*, *an image*, *an idiot*, *one child*, *one wife*, &c. The plural number is generally known by the words terminating with an *s*, or *es*; but the singular never, but in such as have a plural termination, tho' they have a singular meaning; as, *arm, arms*: *horse, horses*: *king, kings*: *stone, stones*, &c.

There are some exceptions to this general rule, but they are few in comparison to those that it comprehends: such as *ox, oxen*: *man, men*: *brother, brethren*: *cow, cows*, or *kine*: *mouse, mice*: *foot, feet*: *tooth, teeth*: *penny, pence*, &c. Singulars which end in *f* or *se*, have their plurals ending in *ves*; as *wife, wives*: *self, selves*: *knife, knives*: *wolf, wolves*, &c. And tho' most words, whose singulars end in *ff*, follow the general rule foregoing, as *muff, muffs*, &c. yet *staff* makes *staves*, according to the latter rule.

Some terminate alike in both numbers, as *one sheep, ten sheep*: *one swine, ten swine*, &c.

There are some words that admit of no singular number, such as *ashes, bowels, crosses*, &c. And on the con-

trary there are a great many that want the plural number; such as proper names of men, women, places, creatures and things; as also their virtues, vices, habits, and abstract qualities, the generality of grains, spices, herbs, drugs and liquids, as, *wheat, rye, pepper, ginger, grass, air, blood, milk, &c.*

To the English language there belong three genders, which in conformity to the custom used in the Greek and Latin tongues, may be called *masculine, feminine* and *neuter*; the *masculine* comprehending all males, the *feminine* all females, and the *neuter* all things without life; and these are thus distinguished by these terms, *he, his* or *him*, for the *masculine*; *she, her, hers, &c.* for the *feminine*; and *it* for the *neuter*, but the quality remains the same, and is as applicable to males as females, or things without life called *neuters*, as *a good boy, a good girl, a good knife, &c.*

Some *feminines* are formed by changing the termination of the *masculine* into *ess*, as *count, countess*; *duke, duchess*; *heir, heiress*; *lion, lioness, &c.*

The English language has three persons, *viz. I, the first*; *thou, the second*; *he, she, it, the third*, in the singular number; and *we, ye, you; they, those*, in the plural; to which may be added *who, whom* or *what*. These distinctions are absolutely necessary, as appears from the nature of speech, which is always employed about the person or persons, then immediately speaking, denoted by the characteristic *I* or *we*; the person or thing spoken to, by *thou, ye* or *you*; or the person or thing spoken of, by *he, she, it, they, &c.* This is to be understood when they stand before an affirmation, as *I write, thou writest, he writeth*, but in compound sentences, and after affirmations they are changed into *me, thee, him, &c.* as, *I can prove this horse belongs to me, thee, &c.*

All qualities in English are the same in both numbers, as *a good man, ten good men, &c.* and unless some name be joined with it, to determine what quality it is to be understood of, it can never make the sense complete; as, *good, bad, &c.* have no meaning till applied; as *a good boy, a bad horse, &c.*

When two names are compounded into one word,

the first becomes a quality, as, *sea-fish, gold-cup, &c.*

My, Thy, Her, Our, Your, Their, are called *personal possessives*, and are only used when they are joined with names, as, This is my horse, My coat, My book, &c. but when the sense is not expressed immediately, but understood, or a question is asked, they are changed into Mine, Thine, Hers, Yours, Theirs; as, This knife is mine; that is, This is my knife; Whose knife is this? Mine, or, It is my knife, &c.

To qualities belongs also increase or diminution of the value, goodness or virtue of the names to which they are joined; and these are generally formed by adding *er* and *est* to the plain simple word itself; as Fair, Fairer, Fairest; though sometimes they are made by adding More or Most to the simple word, as Fairer or More fair, Fairest or Most fair: reading and observation will quickly teach any person where to introduce those in the most advantageous place. These four following are irregulars; Good, Better, Best; Bad or Ill, Worse, Worst; Little, Less, Least: Much, More, Most.

Instead of the various terminations and declensions of the other languages, the English use *a* or *the, of, to, by, from* or *with*, &c. to distinguish the several circumstances of the Name both when it is alone, and also when it is joined with the Quality in both numbers: as,

Singular number.	Plural number.
<i>A or the man</i>	<i>The men</i>
<i>Of a or the man</i>	<i>Of the men</i>
<i>To a or the man</i>	<i>To the men</i>
<i>By, from or with a or the man</i>	<i>By, from or with the men</i>

Singular.	Plural.
<i>A or the good horse, &c.</i>	<i>The good horses, &c.</i>
<i>Of a or the good horse, &c.</i>	<i>Of the good horses, &c.</i>

We have already taken notice that the third class of words, is the affirmation and what its office is; we shall only here observe, that it has *two numbers, time*, and *person* belonging to it, by which the being, action, or passion of the subject or name is declared or affirmed; for the expressing the true state of the time, there is what

are usually called *auxiliaries*, from or by which the times of other affirmations are expressed, there being only the *present* and the *passing-time* naturally arising from the different endings of the words themselves; that is, the present and the passing, or past time, as *love* the present, and *lov'd* or *loved* the passing time. The present time, or the instant in which any thing is actually performing, &c. is distinguished by the words *do*, *doſt*, or *doth*, for the singular number; and *do* only for the plural, with the proper personal signs, *I*, *thou*, *he*, *we*, *ye*, *they*, &c. The passing time is an imperfect manner of expressing, and intimates so much, having the sign *did*, or the termination *ed*: the past time shews the action complete, by affirming something with the sign *have*; there is also what is called the *preterpluperfect tense*, and has the sign *had* affixed to it, the other is the *future tense* that affirms something *shall* or *will* be hereafter. And tho' there are really but three proper distinctions of time, *viz.* the present, the past, and the future, yet as our language, as well as others, hath various terminations, or manners of expression, we shall insert them: as to the distinctions of what is commonly called *moods*, it is undeniably certain that they may be denominated as variously, and be as numerous as the particular circumstances require.

As what is called the *potential* and *subjunctive moods*, are an undeniable proof of differing only by some accidental signs; for which reason they are not here enumerated, but called the *1st*, *2d*, *3d*, and *4th* mood. The first declaring or making some positive assertion about, or relating to the subject, or name. The second having only one tense and five persons, and is employed wholly about commanding or ordaining, praying or permitting something to be done without any specification of time. The third may be variously circumstanced, according as it has its expletives adjoining. And the fourth expresses the action barely and indefinitely as to time. The two auxiliaries supply all others, with those tenses or times which they naturally have no proper termination or distinction for, *viz.* *to have*, by whose assistance all actives are formed, or such as import doing something; and *so be*, from which all passives are formed, that is, such

as import suffering or bearing something done to the subject.

The first or indicative mood.

Present tense.		Present tense.	
Singular.		Plural.	
<i>I</i> —have		<i>We</i> —have	
<i>Thou</i> —hadst		<i>Ye</i> —have	
<i>He</i> —hath		<i>They</i> —have.	
Past tense.		Past tense.	
Singular.		Plural.	
<i>I</i> —had		<i>We</i> —had	
<i>Thou</i> —hadst		<i>Ye</i> —had	
<i>He</i> —had		<i>They</i> —had	
Future tense.		Future tense.	
Singular.		Plural.	
<i>I</i> shall or will have		<i>We</i> }	shall or will have
<i>Thou</i> shalt or wilt have		<i>Ye</i> }	
<i>He</i> shall or will have		<i>They</i> }	

Some make other distinctions of time, but as they are only a coupling of those together, this short essay will not permit the disquisition; such as, *I have had, I had had, &c.*

The second or imperative mood.

Have thou. Let him, her, it have. Let us have. Have ye. Let them have.

The third or subjunctive, potential, &c. mood,

Is always distinguished by adding some sign of wishing power, &c. as *I may or can have; I might, could, should, or ought to have, &c.*

The fourth or infinitive mood,

Is always distinguished by the sign *to*; as, *to have, to love, &c.* from this mood that quality is called a *participle*, is formed, importing possession; as *having, being, loving, &c.*

The first or indicative mood.

Present tense.	Present tense.	Past tense.	Past tense.
Singular.	Plural.	Singular.	Plural.
<i>I am</i>	<i>We are</i>	<i>I was</i>	<i>We were</i>
<i>Thou art</i>	<i>Ye are</i>	<i>Thou wast</i>	<i>Ye were</i>
<i>He, she, it is</i>	<i>They are</i>	<i>He was</i>	<i>They were</i>

Future tense.		Future tense.	
Singular.		Plural.	
<i>I shall or will be.</i>		<i>We</i>	} <i>shall or will be</i>
<i>Thou shalt or wilt be.</i>		<i>Ye</i>	
<i>He shall or will be.</i>		<i>They</i>	

There are other expressions, called tenses, compounded of *have* and this verb; as, *I have been*, &c. *I had been*, &c.

The second or imperative mood.

Be thou. Let him, her, it be. Let us be. Be ye. Let them be.

The third or subjunctive, &c. mood.

That I may, can, might, would, could, should or ought to be, &c.

The fourth or infinitive mood.

To be, to have been. Being.

From these all other affirmations regular and irregular are formed and completed, to express every possible circumstance of time, action, or passion: as for example.

First Mood.

I love, I loved, I have loved, I had loved, I shall or will love

We We We We We

Thou lovest or dost love | *Thou lovedst or didst love*

Ye love or do love | *Ye loved or did love*

Thou hast loved | *Thou hadst loved*

Ye have loved | *Ye had loved*

Thou shalt or wilt love

They shall or will love

Second Mood.

Love thou; love he, she, or it, or let him, her, or it love; love we, or let us love; love ye; love they, or let them love.

Third Mood.

I, thou, he, she, &c. may, can, might, could, &c. love.

Fourth Mood.

To love, loving, &c.

From what has been said, it is observable, that the natural formations are made successively, thus: first, something is affirmed by the first person singular; as *I*

love, then I loved, or did love, then I have or had loved; and afterwards shall or will love. But there are some verbs that are irregular, and instead of ending in *ed*, in the 2*d* and 3*d* tenses have particular endings of their own; as, I bear, bore, have born; I beat, have beaten; I begin, have begun; I behold, have beheld; I bend, have bent; I bind, have bound; I bite, have bitten; I blow, blew, have blown; I bleed, have bled; I breed, have bred; I bring, have brought; I break, broke, have broken; I am born, was born, have been born; I buy, have bought; I catch, have caught; I chide, chid, have chidden; choose, chose, have chosen; I come, came, am come; I cleave, clove, have cloven; I cut, have cut; I creep, crepe or crept, have crept; I crow, crew; I dare, durst; I deal, dealt; I do, did, have done; I draw, drew, have drawn; I dream, dreamt; I drink, drank, have drunk; I drive, drove, have driven; I do eat, did eat, have eaten; I fall, fell, am fallen; I feed, fed; I feel, felt; I do fetch, did fetch; I fight, have fought; I find, found; I sing, sung; I fly, flew, am flown; I fly, fled, am fled; I forget, forgot, have forgotten; I get, got; I give, gave, have given; I go, went, am gone; I grind, ground; I grew, grow, am grown; I hang, hung, have hanged; I hear, heard; I hide, hid, have hidden; I hold, held; I keep, kept; I know, knew, have known; I lead, led; I learn, learnt; I leave, left; I lend, lent; I do let, did let, have let; I lie, have lain; I lye, lyed; I lose, lost; I make, made; I mean, meant; I meet, met; I miss, mist or missed; I owe, have owed; I do, did, have put; I do, did, have read; I ride, rid, have ridden; I ring, rung; I rise, rose, am risen; I do, did, have run; I say, said; I see, saw, have seen; I seek, sought; I sell, sold; I send, sent; I do, did, have shed; I shine, shone; I shoe, shod, I shoot, shot; I shrink, shrunk; I sing, song or sung; I sit, sat or sate; I slay, slew, have slain; I sleep, slept; I slide, slid; I sling, slung; I smell, smelt; I smite, smote, have smitten; I speak, spoke, have spoken; I spend, spent; I spill, spilled or spilt; I spin, spun; I spit, have spit or spitten; I do, did, or have spread; I spring, or sprung; I spit or spat; I sow, sowed, have sown; I stand, stood; I stink, stunk; I strike, struck,

have stricken; I string, strung; I swear, swore, have sworn; I do or did sweat, have sweated; I sweep, swept; I swim, swam, have swum; I take, took, have taken; I teach, taught; I tear, tore, have torn; I tell, told; I think, thought; I thrive, throve, have thriven; I throw, threw, have thrown; I tread, trod, have trodden; I understand, understood; I weave, wove, have weaved; I weep, wept; I win, won; I am, was, have been willing; I work, wrought; I wring, wrung; I write, wrote, have written.

The fourth part is here universally called *particles*, under which denomination, all those small words that tie or unite the others together, or that express the modes or manners of words are signified, and which usually, by the common grammarians, are called *adverbs*, *conjunctions*, *prepositions*, and *interjections*. From the due use and connexion of these four parts, are formed sentences; and from a number or multitude of sentences, arise regular discourses, speeches, &c. A sentence consists of three words at least, by which some idea of the mind is expressed; as *lying is hateful*. And this is called a simple sentence, wherein the name or thing is expressed but once, and something is affirmed of that subject: first, its being, and next its mode of being, or else some action of the subject passes upon another, or at least is understood so to do. All others are compounded, wherein either the same subject or name is repeated, or different ones affirmed something of, &c. The name ordinarily is placed before the affirmation and is always really expressed or understood so to be; as, *John loves Mary*. And here it must always be observed, that the same number and person, that the name whose action or passion is intended or expressed by the affirmation is, the same must the affirmation itself be; as in the example above, the name *John*, is the third person singular, and so is the affirmation *loves*: and in the following sentence, *men love your wives*; the name *men* is the second person plural, so is the affirmation. *We admire learning*; here *we* is the first person plural and *admire*, is so also; which is to be observed of all others.



Round Hand

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLM
NOPQRSTUVWXYZ

He that loveth pleasure shall
be a poor man, he that loveth
wine and oyl shall not be rich.

German Text

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNO
PQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Speak not in the ears of
a fool for he will despise

Italian Hand

aabedeffghijklmnoopqrstuvwxy
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

*Riches are not for ever, & doth the
crown endure to every generation*

Engrossing

abedeffghijklmnoopqrstuvwxy
A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z

abedefghijklmnoopqrstuvwxyz
A B C D E F G H I J K L M N
O P Q R S T U V W X Y Z

Running Hand

*Fret not thy self because of evil men,
neither be thou envious.*

*For sake the foolish and live and go in
the way of understanding*



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D I R E C T I O N S

F O R

W R I T I N G.

I Shall endeavour to make this performance useful to those who desire to write well for common business; as also to such teachers who want to be instructed in the first principles of the art of writing. And therefore I shall not trouble you with a long, unnecessary account of the dependence of all the letters in the several alphabets upon one another, that being easily discovered (so far as is material) by any one who knows but the fundamental letters of each hand, which I shall only mention, and leave the rest to your own observation.

The several sorts of hands now in use among us, may be divided into two branches, viz. those of absolute use for business, and those which are only ornamental. Those of absolute use may be reckoned six, the round-hand and Italian, in which most of the common affairs of trade, and the ordinary business of life, are written by all Europeans; the engrossing, square text, court, and chancery hands, in which all the various business of the law is generally transacted, and recorded. The other hands, viz. the old English, the Roman and Italian prints, the German text, &c. are only made use of by way of ornament, or for curiosity in some particular cases, and therefore the writing of them is not esteemed of such necessity to those who are intended for common business.

The principal things to be aimed at in order to write any hand well, are those two; first, To get an exact no-

tion or idea of a good letter, which may be done by a frequent and nice observation of a correct copy; the other is, To get such a command of hand, as to be able to express, with the pen, that idea upon the paper, which is attained by constant and careful practice after good examples; the learner being first informed of the most necessary things to be observed in his practice of that hand he intends to be master of. I shall therefore,

I. Mention some things to be generally observed in writing.

II. Give some directions for holding the pen.

III. Shew the nature of the pen, with particular rules and proportions for writing each hand.

And, fourth, Lay down some proper directions for young persons, when they first enter upon business, in order to bring them to write a good hand with expedition, and to make them place figures after the most beautiful and practical manner.

I. The essential properties of a good piece of writing are, a due proportion of the characters throughout the whole; a just distance between the letters themselves, as well as the words; with a natural leaning or inclination of the letters one to another: a clean, smooth stroke, performed with a masterly boldness and freedom, without which, the most regular piece is like a dead corps, whose features, tho' they may be exact in symmetry, yet want that spirit which only can render it an object both valuable and delightful.

The proportion of the several letters in most hands, is generally regulated by the *o* and *n*, therefore let the making of them be first carefully practised, and then the other letters which come from them, all which must be of the same width and fulness of strokes as they are of.

The proportion and shape of the letters in any hand, ought to be the same, whether they are written in a large or small size; therefore, let every hand be first learned in a large character, which will not only sooner fix the idea of a good letter in your mind, but also give you a greater freedom, and in a shorter time, than writing of the small will. It is certain, that the lesser is always con-

tained in the greater; and he that attains to write any hand large, may soon write it as small as he pleases.

Let all strokes, which are the constituent parts of a letter, or, (as some call them) the body-strokes, be made with the full pen, and of the same thickness one with another, as near as is consistent with the nature of the hand you are writing.

Let all the strokes which join the constituent parts of letters, or the letters themselves together, be made with the corner of the pen, and as fine as the hand will admit of; which strokes must always have some proportion to the body-stroke, and must be thicker, or finer, according as the character is lesser, or greater: turn not your pen, neither alter the position of your hand, but let it move with a steady, easy motion, and perform every letter without catchings, and convulsive flutterings.

Let the fine strokes answer one another, in a kind of opposition, and in many hands run parallel.

Let all the letters which have not stems above or below the line, be even at top and bottom. Let those which have stems above the other letters be equal in length to *l*, except *t*, and a few other letters in some hands. Let those which have stems below the line, be equal in length to the *j*, some few excepted, which may be seen by the alphabets of the several hands in the examples.

Let the capital letters be equal in height to the little *l*, and a small matter stronger.

Let the distance between words be double to that between letters.

Let the lines be of such a distance that the stems of the letters may not interfere one with another; to prevent which they must be at least twice the length of an *l* asunder.

II. The next thing is, directions for holding the pen, and sitting to write.

Hold your pen between the two fore-fingers, extended almost straight; and the thumb bending a little outward, and in your right hand, with the hollow side of the pen downwards, and the nib flat upon the paper; let it rest between the two upper joints of the fore-finger, and upon the end of the middle one, about an inch from

the nib of the pen, the ends of the little finger, and that which is next to it, bend in towards the palm of the hand, about half an inch distant from the end of the middle finger.

Let the book or paper lie directly before you, and your hand rest only on the top of your little finger; let no other part of your hand or wrist touch the paper or desk; rest your arm very lightly between the wrist and elbow. Keep your body upright, and from touching the desk; let your elbow be almost close to your side, and the pen pointed towards the outer part of your left shoulder; so that a line being drawn from the inner part of the arm, at the bend of the elbow to the nib of the pen, will be nearly at right angles with the line you are writing upon. And for the slope hands, turn your left side a little towards the desk; but for the upright ones, let the body be directly before it, and the right elbow turned outwards from your side: so that a right line being drawn from the inner bend of the elbow to the nib of the pen, will make an angle, near 45 degrees with the line you are writing upon. Let the weight of your body rest upon your left arm, and the paper be kept down with your left hand.

Take care of pressing hard upon your pen in writing any hand.

III. As to the nature of the pen, and the particular rules and proportions for writing each hand, though they might be swelled up to a very great number, by enlarging upon every critical nicety, yet I shall deliver only such, as, in my judgment, are most necessary, most beautiful, and most applicable to expeditious practice.

Make the nib of your pen for the round and round text hands, the breadth of the full stroke, and that part lying next the hand somewhat shorter and narrower.

For the Italian hand make the nib somewhat finer, and the slit longer.

Note, In writing, where figures are intermixed, they must always slope.

Your figures likewise must be larger than your writing.

When your figures are ranged in columns, make them upright.

To make a PEN.

TAKE the first, second, or third quills in the wing of a goose or raven (those that are round, clip and clean are the best :) when you have scrap'd off the thin rind thereof, with the back-edge of your pen-knife, hold it in your left hand with the feather end from you, then enter the back thereof sloping, and cut off as much in length, as the quill is in breadth, and answer that with another cut on the inside, like an opposite to the former; then turn the quill, and enter the edge of your pen-knife even in the back thereof, and exactly in the midst of the half round, neither inclining the blade one way or other, that the slit may not be made awry. Then put in the peg of your knife haft, if it has one for that purpose, or the end of a whole quill, and with a sudden twitch, force up the slit, holding your left hand thumb hard upon the back of the quill, to put a stop how far the slit shall go. This being done, enter your knife sloping in the other side above the slit, about twice the breadth of the quill, and cut away the cradle-piece; then turn the back upwards, and cut down to the end of the slit, the cheek or shoulder-pieces; and in so doing, turn the knife on both sides towards the back. After this, place the inside of the end or nib of the pen, upon the nail of your left hand thumb, holding the quill fast between the fore-finger and middle finger of that hand. Lastly, to finish the nib, enter the edge of the knife on the back, and near the end thereof sloping, and immediately turning the edge almost downright, cut it off.

There are four considerations belonging to the quill,

If the quill be too hard, steep it a while in water.

If it be too soft, harden it with embers.

If it be too thick, pare a small quantity from the back of the nib.

If it be too thin and weak, strengthen the pen with a short slit, a short nib, and broad shoulder.

Best BLACK INK.

TO six quarts of rain or river water (but rain water is the best) put one pound and a half of fresh blue galls of Aleppo (for those of Smyrna are not strong enough) bruised pretty small; eight ounces of copperas, clean, rocky and green; eight ounces of clean, bright and clear gum arabic; and two ounces of roch allum: let these stand together in a large stone bottle, or clean stone pot, or earthen pot, with a narrow mouth to keep it free from dust; shake, rowl, and stir it well once every day, and you will have fine ink in about a month's time, and the older it grows, the better it will be for use.

Ingredients for a Quart.

One quart of water, four ounces of galls, two ounces of copperas, and two ounces of gum, mixed and stirred as above.

LONDON INK-POWDER.

TAKE ten ounces of the clearest nut-galls, bruise them, and sift the powder very fine, then add white copperas two ounces, Roman vitriol three ounces, gum arabick or sandarack an ounce, bruise and sift them very fine, so that though they appear white, a little being put into water, will in a little time turn it, and an ounce of powder will make a pint of very black ink.

JAPAN or SHINING INK.

TAKE gum arabick and Roman vitriol, of each an ounce, galls well bruised a pound, put them into rape vinegar, or vinegar made of clear small beer; let them remain in a warm place, often stirring, till the liquor becomes black, then add to a gallon, an ounce of ivory black, and a quarter of a pint of seed lac-varnish, and it will be a curious black shining ink.

A POWDER-INK to rub on paper, and write on.

BRUISE about twenty nut-galls, and half an ounce of Roman vitriol, as much gum arabic and gum sandarack, mingle these finely together, when well bruised and sifted to powder, rub the paper hard with it with cotton wool, and polishing it with a piece of ivory, write with water, and in a little time the letters you write will appear a fair black, as if written with the best ink.

To make RED INK.

TAKE three pints of stale beer, (rather than vinegar) and four ounces of ground brazile wood; simmer them together for an hour; then put in four ounces of roch allum; and these three are to simmer together for half an hour; and then strain it through a flannel, or, &c. then bottle it up, well stopped for use.

To keep INK from freezing or moulding.

IN hard frosty weather, Ink will be apt to freeze; which, if once it doth, it will be good for nothing; for it takes away all its blackness and beauty: to prevent which (if you have not the conveniency of keeping it warm, or from the cold) put a few drops of brandy, or other spirits, into it, and it will not freeze. And to hinder its moulding, put a little salt therein.



COPIES for WRITING.

Single line COPIES in prose, in an alphabetical Order.

A

A Wise man's anger is of short continuance
Accustom your children to a true notion of things
Adversity is the touch-stone of friendship
Approve not of that man who commends all you say
A flattering companion is a dangerous enemy
Accept no preferment on dishonourable terms

B 3

A wise man governs with ease, and is obey'd with pleasure

A covetous man is always in want

Add to your faith, virtue, and to virtue, knowledge

A prudent man values content more than riches

A virtuous mind is rather to be chosen than promotion

Authority is the main point in government

Abstain from all appearance of evil

A merry heart maketh a chearful countenance

Anger resteth in the bosom of fools

A soft answer turneth away wrath

Adversity makes a man wise, rather than riches

Advice comes too late when a thing is done

B

BE more afraid of secret sins, than open shame

Brave spirits promote the public good

Be patient in adversity, and humble in prosperity

Beauty without virtue is like a painted sepulchre

Be less confident and more diligent

By learning to obey, you shall know how to command

Brave men will do nothing unbecoming themselves

By diligence and industry we come to preferment

Buy thou the truth, and sell it not.

C

CONTENTMENT makes a man happy without a fortune

Children require instruction as well as provision

Commit not that to another, that you can do yourself

Custom in infancy, becomes nature in old age

Chide him not too much, who confesses his fault

Courtesy and humility are marks of gentility

Confession of a fault makes half amends for it

Contentment is preferable to riches and honour

Consider the shortness of life, and certainty of death

Competency with content is a great happiness

D

DEATH destroys not the soul; but an ill life does

Delight in what you undertake to learn

Drinking is the drowning of cares, not the cure of them

Do unto others as you would have them do unto you
 Death will comfortably end a well spent life
 Devise not evil against thy neighbour
 Do not render evil for evil unto any man
 Drunkenness reveals what soberness conceals
 Do not govern your life by fancy, but by reason
 Delay in many cases is dangerous

E

EVERY delay of repentance is a cheat upon our-
 selves

Education is that which maketh the man
 Every prudent man dealeth with knowledge
 Exalt wisdom, and she shall promote thee
 Ease and honour are seldom bed-fellows
 Evil company makes the good bad, and the bad worse
 Every idle thought to judgment must be brought

F

FORSAKE the foolish, and go in the way of under-
 standing

Follow the dictates of reason, and you are safe
 Forget not God in your mirth, nor yourself in your an-
 ger

First learn to obey, before you pretend to govern
 Feed your body as your slave, not as your master
 Fools make a mock at sin
 Few do good with what they have gotten ill
 Future events must be left to providence
 Frugality and industry are the hands of fortune

G

GIVE God the first and last of each day's thought
 Grieve not for those things which are out of your
 power

Great sins require great repentance
 Good education is the foundation of man's happiness
 Give as chearfully as you receive
 God often corrects us in this life to save us in the next
 God is our refuge, a very prudent help in trouble
 Good manners, grace and truth, are ornaments in youth
 Greater profit doth always come of learning than of play

Good men are safe when wicked men are at odds

H

HE that will not work should not eat
 Happiness is desired by all, but obtained by few
 He is in some degree wise that conceals his ignorance
 He that begins well has done half the work
 Hear both parties before you give judgment
 He that boasts in his sins, glories in his shame
 He never wants comfort that has content
 Hear, ye children, the instruction of a father
 Hear instruction; be wise, and refuse it not
 He that sins against conscience, sins with a witness
 He that swims in sin must sink in sorrow

I

IF riches encrease, set not your heart upon them
 In prosperity prepare for adversity
 Idleness has no advocate, but many friends
 It requires as much care to keep, as to get an estate
 Industry keeps the mind clear, and the body healthy
 In the multitude of counsellors there is safety
 Industry is fortune's right hand, and frugality her left
 Instruction and a good education is a durable portion
 It is good to have a friend, but bad to need him

K

KEEP back thy servant from presumptuous sins
 Knowledge is the treasure of the mind
 Know when to speak and when to hold your tongue
 Keep company with those who may make you better
 Keep thy tongue a prisoner, that thy body may go free
 Knowledge puffs up some men and humbles others
 Keep thy tongue from evil, and thy lips from guile
 Keep good company, and you shall be of that number
 Keep a close mouth, if you would have a wise head
 Keep at a distance from ill company
 Kings may win crowns, but cannot conquer death

L

LEARNING is the ornament of youth, and comfort
 of age

Lament not the loss of that which ye cannot retrieve
 Lying lips are an abomination to the Lord
 Let another man praise thee, and not thy own mouth
 Love not sleep, lest thou come to poverty
 Life without a friend, is death with a witness
 Learn to live as you would wish to die
 Liberty is grateful to all but destructive to many
 Let not the work of the day be put off till to-morrow

M

MERCY and truth shall follow them who devise
 good
 Man has much to learn, but a short while to live
 Malice seldom wants a mark to shoot at
 Make provision for want in time of plenty
 My son, if sinners entice thee, consent thou not
 My son, gather instruction from thy youth up
 Many know good, but do not the good they know
 Many live beggars all their life, that they may not die so
 Many are led by the ears more than by the understanding.
 Many are made saints on earth, that never reach heaven
 Mend your manners, and that will mend your fortune

N

NCESSITY is commonly the mother of invention
 No torments are so great, but patience may van-
 quish
 Nothing is more contagious than an ill example
 Not to grow better, is commonly to grow worse
 No man hath seen God at any time
 None should covet what cannot possibly be had
 Nothing is constant in this uncertain world
 Nothing is so hard, but diligence may overcome
 Nature seldom changes with the climate

O

OUR life here is but a journey to the next world
 Of all prodigality, that of time is worst
 One vice is more expensive than ten virtues
 One fault cannot justify the commission of another
 One bad companion may ruin many good men

Of all poverty, that of the mind is most deplorable
 Of all things, death should never be forgot
 Only by pride cometh contention
 Once well done is twice done
 On present time depends our future state
 Other peoples deaths should be momento's to our own

P

PROVIDENCE consults our wants, not wantonness
 Prosperity gains friends, and adversity tries them
 Passion is a bad counsellor, and as ill'a speaker
 Pride, like a wild horse, overthrows his rider
 Pursue useful and profitable studies
 Poverty and shame attend those that refuse instruction
 Provide against the worst, and hope for the best
 Poor men want many things, but covetous men all
 Put not off the main business of life, to the very article
 of death
 Poor freedom is better than rich slavery

Q

QUENCH not the spirit; pray without ceasing
 Quick at meat, quick at work
 Quench not your desires when they tend to good
 Quick promisers are slow performers
 Quietness and content are mates most excellent
 Quiet men have quiet minds, and enjoy content
 Quarrellsome persons sometimes meet with their match

R

REPENTANCE is the physic of the soul
 Remember not the sins of my youth
 Religion is best understood when most practised
 Revenge not injuries, but forgive them
 Reality is now become a great rarity
 Riches profit not in the day of wrath
 Remember thy Creator in the days of thy youth
 Remember your duty to God, your neighbour, and
 yourself
 Repent to-day, to-morrow may be too late

S

SHAME and disgrace shall be the portion of fools
 Sin goes before, and shame certainly follows after
 Silence is an antidote against an envious tongue
 Saying and doing should be but one man's office
 Shew me a liar; and I will shew you a thief
 Sin and sorrow are inseparable companions
 Soft words sometimes work upon the proudest hearts

T

THERE are none so poor as those whom God hates
 The hope of reward sweetens labour
 To praise yourself is the way to be dispraised
 The power of example prevails more than precept
 Truth is ashamed of nothing but to be hid
 The greatest talkers are always the least doers
 The worth of a thing is best known by the want of it
 Those who wo'nt mend to-day, shall have more work to-
 morrow
 The doing nothing is very near doing evil
 To do good is the way to find it
 Time, and tide, will for no man stay

U

USE soft words and hard arguments
 Unlawful love ends generally in bitterness
 Unto the upright there arises light in darkness
 Undertake deliberately, and execute vigorously
 Unsanctified prosperity is the bane of virtue
 Unto thee will I cry, O Lord, be not silent to me
 Unwillingly go to law, and willingly make an end

V

VIRTUE is commended of all, but followed by few
 Value not yourself by other mens opinion
 Virtue often suffers, when vice goes unpunished
 Valour can do little without discretion
 Virtue to noblest acts the mind inclines
 Variety is the beauty of the world
 Virtue is first to be sought and money next

W

WISE men keep their expences short of their income
 Whatever is forbidden in act is also in thought
 Wicked practices discover bad principles
 Would you be wise, endeavour to be good
 Wisdom to the mind, is like health to the body
 We must not blame fortune for our own faults
 Would you be rich, be industrious; if wise, be studious
 Where there is no fault, there needs no pardon
 When passion rides then give reason the reins
 Weight and measure takes away strife

X

XERXES wept at the thoughts that his vast army
 would be dead in 100 years
 Xenophon accounted the wise man happy
 Xenophon was a learned general
 Xerxes whipt the sea, because it would not obey his
 command
 Xerxes wept at the changeable state of man

Y

YOUNG men see that you honour the aged
 Youth is full of disorder and age of infirmity
 You may know men by the company they keep
 Young men go to death, but death goes to old men
 Young men in strength should provide against age and
 weakness.
 Your vice, and not poverty, is your shame
 You must crack the shell, before you can have the ker-
 nel
 Yield quietly to what must come unavoidably

Z

ZEALOUSLY strive for an eternal crown
 Zeal grounded on knowledge enlivens devotion
 Zeal for religion cannot warrant revenge
 Zeal in a good cause, commands applause
 Zeal without knowledge is but religious wild-fire
 Zeal, if not rightly directed, is very pernicious

AS you expect that men should deal by you,
So deal by them, and give each man his due.

Better it is to gain great reputation,
Than heap up wealth with trouble and vexation.

Constraint in all things makes the pleasure less:
Sweet is the love that comes with willingness.

Despair of nothing that you would attain:
Unweary'd diligence your point will gain.

Experience best is gain'd without much cost:
Read men and books; then practise what thou know'st.

Fortune may sometimes prove true virtue's foe,
But cannot work her utter overthrow.

Greatness in virtue only's understood:
None's truly great, that is not truly good.

Honour's a god, that none but fools adore:
The wise have nobler happiness in store.

If all mankind would live in mutual love,
This world would much resemble that above.

Kingdoms, like private persons, have their fate,
Sometimes in high, sometimes in low estate.

Let each man follow close his proper trade,
And all affairs will soon be better made.

Men's fancies vary strangely, like their faces,
What one commends, another man disgraces.

Number itself is at a loss to guess
Th' endurance of our future happiness.

Oh! that the sons of men would once be wise,
And learn eternal happiness to prize!

Pray thou to God, that he may be inclin'd
To grant thee health of body, and of mind.

Quarrellsome brawling, gaming, fuddling shun:
Thrice happy they; that ne'er such courses run.

Remember, time will come, when we must give
Account to God, how we on earth do live.

Some men get riches, yet are always poor;
Some get no riches, yet have all things store.

They that are proud, and other men disdain,
Do often meet with hate and scorn again.

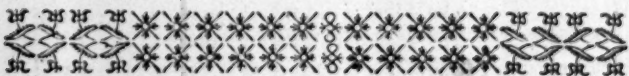
Virtue is prais'd but little practis'd by us:
So loose the age, that few are truly pious.

What's human life? a day, a race, a span,
A point, a bubble, froth: so vain is man,

Xenophilus did well in Health abide
One hundred seven years, and then he dy'd.

Young men, take pains, be brisk, and I'll engage;
Your youthful pains will pleasure yield in age.

Zaleucus made his laws so strick, that those,
Who acted whoredom, both their eyes should lose.



Of the POINTS, or STOPS, and other MARKS used in
writing and reading; with their characters, places,
and signification.

THE stops are used to shew what distance of time
must be observed in reading: and they are so ab-
solutely necessary to the better understanding of what we
write, and read, that without a strict attention to them,
all writing would be confus'd, and liable to many mis-
constructions.

Stops, considered as intervals in reading, are but four
viz. comma, semicolon, colon, and period, or full stop:
and these bear a kind of musical proportion of time one
to another: for a comma stops the reader's voice, while
he may privately, with deliberation, tell one; the semi-
colon, two; the colon, three; and the period, four.

Their characters are thus.

Comma (,) a circular dash at the foot of a word.

Semicolon (;) a point over the comma.

Colon (:) two points.

Period (.) a single point at the foot of a word.

But if a question be asked, there's a circular stroke
upon a short line put over the period, and 'tis called an
interrogation; thus (?).

If a sudden wondering be expressed, then a straight
line is placed over the period, and 'tis called a note of
admiration; thus (!).

If one sentence be enclosed within another, of which
it is no part, then 'tis put between two large half circles

called Parenthesis, thus, (), and, in reading, this doth something lower the tone of the voice, as a thing, that comes in by the bye, interrupting the main coherence of the period, and restraining it from being taken in so large a sense as it might otherwise bear. Each part of it is equal in time to a comma.

These, that follow, are the most usual marks in writing.

Accent (') being placed over a vowel, notes, that the tone, or stress of the voice in pronouncing, is upon that syllable.

Apostrophe (') a comma at the head of letters, denotes some letter, or letters, left out for quicker pronunciation; as I'll, for I will; wou'd'st, for wouldst; sha'n't, for shall not; ne'er, for never.

Asterism (*) a star, guides to some remark in the margin, or at the foot of the page. Several of them set together signify, that there is something wanting, defective, or immodest in that passage of the author.

Breve (~) is a crooked mark over a vowel, and denotes that it is sounded quick or short.

Caret (^) is placed underneath the line, and denotes, that some letter, word, or sentence is left out by mistake, and must be taken in exactly where it points.

Circumflex (^) is in the same shape as caret, but is always placed over some vowel of a word, to denote a long syllable.

Dieresis (") is two points placed over two vowels of a word, that would otherways make a diphthong, and parts them into two several syllables.

Hyphen (-) is a straight mark a-cross, which, being set at the end of the line, denotes, that the syllables of a word are parted, and that the remainder of it is at the beginning of the next line.

Here note, that whenever a word is thus parted, the syllables must be carefully separated by the rules of spelling.

'Tis used also to join, or compound, two words into one; as, Ale-house, Inn-keeper.

Being placed over a vowel it is not then properly called a Hyphen, but a Dash, which in writing signifies the omission of m or n; as, Nothing is more comen-

dable thā fair writing; for, Nothing is more commendable than fair writing.

Index (☞) the forefinger pointing, signifies that passage to be very remarkable, against which 'tis placed.

Obelisk (†) is used as well as the asterisk *, to refer the reader to the margin. In dictionaries it commonly denotes a word to be obsolete, or less in use.

Paragraph (¶) or division, comprehends several sentences under one head, or subject.

Parenthesis [] or brackets, include words or sentences of the same value and signification with those they are joined to, which may be used in their stead.

Quotation (") or a double comma reverse, at the beginning of a line, shews a passage quoted out of an author in his own words.

Section (§) or division, is used in subdividing of a chapter, or book, into lesser parts or portions.



ABBREVIATIONS.

Abbreviations, are very necessary for dispatch of business. For by them, we expeditiously express, or set down a long word shortening it, by making some initial letter, or letters, belonging to the word, to express it; as in the Table following.

A. B. Artium baccalaureus, or bachelor of arts	Ap. apostle
Abp. archbishop	Adml. admiral
Acct. account	Agt. against
A. D. Anno Domini, or the year of our Lord	Amot. amount
A. M. Anno mundi, or the year of the world	Aug. August
Admts. administrators	A. R. Anno regni, or in the year of the reign
A. M. Artium magister, or master of arts	B. A. bachelor of arts
Ana. of each a like quantity	B. D. batchelor of divinity
	B. V. blessed virgin
	Bart. baronet
	Bp. bishop

C. chapter	Knt. knight
Cant. Canterbury	L. libræ, or pounds
Cent. centum, or hundred	Lieut. lieutenant
Chan. chancellor	L. L. D. legum doctor, or doctor of laws
Chap. chapter	Mar. March
Capt. captain	M. A. master of arts
Cl. clericus, or clerk	Maj. Majesty
Co. company	Monf. monsieur
Col. Colossians, colonel	Mr. master
Comrs. commissioners	Mrs. mistress
Con. Constance	M. D. medicine doctor, or doctor of physic
Cr. Creditor	M. S. memorie sacrum, or sacred to the memory; also manuscript
C. C. C. corpus Christi col- lege	N. Note
C. S. custos sigilli, or the keeper of the seal	N. B. nota bene, note, mark well, or observe
C. P. S. custos privitati si- gilli, or keeper of the privy seal	N. S. new stile
Dr. doctor or debtor	No. number
Do. ditto	n. l. non liquet, or it does not appear
D. denarii, or pence	Nov. or gber, November
Dec. or xber, or 10ber, December	Obj. objection
Devon. Devonshire	O. W. old word
Decd. deceased	O. S. old stile
Doct. doctrine	Oct. or 8ber, October
D. D. doctor of divinity	Oxon. Oxford
E. g. exempli grati, or for example	Pd. paid
Esq; esquire	p. per, or by
Exon. Exeter	per ct. per centum, or by the hundred
Feb. February	Parl. parliament
Gent. gentleman.	Philom. philomathes, or lo- ver of learning
Hund. hundred	Philo-math. philo-mathe- maticus, or a lover of mathematics
i. e. id est, or that is	'P. S. postscript
I. H. S. Jesus hominum sal- vator, or Jesus Saviour of men	Q. question
Inst. instant	
Jan. January	
Jno. John	

q. d. quasi dicat, or as if he should say	theologiæ professor, or professor or doctor of di- vinity
q. l. quantum libet, or as much as you please.	The. Theophilus
q. s. quantum sufficit, or a sufficient quantity	Tho. Thomas
qr. quarter, or a farthing	V. verse
Rev. reverend	Viz. videlicet, or to wit, or that is to say
Rob. Robert	Will. or Wm. William
Reg. prof. regus professor	Wp. worship
Rt. Hon. right honourable	Xn. christian
S. A. secundum artem, or according to art	Xt. Christ
St. saint	Xtopher. Christopher
Sect. section	ye. the
Sept. or 7ber, September	yn. then
Serj. Serjeant	yo. you
Serv. Servant	ym. them
Salop. Shropshire	yt. that
Sr. sir	yr. your
ss. semissis, or half a pound	z. zeal
S. S. T. P. sacro-sanctæ	&c. et-cetera, or and the rest, or and such like



To write on Paper GOLD LETTERS, called SHELL GOLD.

LAY a little leaf gold upon a fine earthen plate, and drop thereon a little clear virgin's honey, then work it up with your clean knife's haft, until it is stiff like unto a paste, which put into an oyster shell, and do it close; when you are to write with it, put a little gum water on the side of the gold, and mix a little thinly fit for your pen.

How to write SECRET LETTERS.

WRITE what you would have seen on one side of the paper with common ink, and on the other side with milk, that which you would have secret; and when

you would make the same legible, direct your friend to hold that side, which is written with ink, to the fire, and the milky letters will shew bluish on the other side, and easy to be read.

Another Way.

YOU must write a letter that may carry good sense, to your friend, but let the lines be wide asunder: then between these lines write your secret letter, with gall water only, wherein the galls have been infused but a little time; for if after you have written with it, there be any sensible colour left upon the paper, you must throw away the water, and make new; this being dry, and of one colour with the paper, will give no cause of suspicion; and the rather, because the letter purporteth a sufficient sense already. Now for the discovery of it, you must dissolve some copperas in fair water, and with a fine pencil, dipt in the copperas water, you must moisten the interlining of your letter, and thereby you shall make it legible.

To write both Blue and Red Letters at once, with the same ink and pen, and upon the same paper.

PUT the quantity of a hazel nut of litmose blue to three spoonfuls of conduit water, wherein some gum-arabic is dissolved; and when it hath settled the space of an hour, if you write therewith you shall have perfect blue letters: and if you dip a pencil in the juice of lemons, and wet some part of the paper therewith, and afterwards let your paper dry again, and then write upon the place where the juice of the lemon was laid, with your blue ink, the letters will suddenly become red, and in all the rest of the paper, the letters will be blue.



A Poem in praise of the invention of Writing.

BLEST be the man ! his memory at least,
 Who found the art, thus to unfold his breast ;
 And taught succeeding times an easy way,
 Their secret thoughts by letters to convey ;
 To baffle absence, and secure delight,
 Which till that time was limited to sight.
 The parting farewell spoke, the last adieu,
 The less'ning distance past, the loss of view,
 The friend was gone which some kind moments gave,
 And absence separated like the grave.
 When for a wife the youthful patriarch sent,
 The camels, jewels, and the steward went,
 And wealthy equipage, tho' grave and slow,
 But not a line that might the lover show,
 The ring and bracelets woo'd her hands and arms,
 But had she known of melting words the charms
 That under secret seals in ambush lie,
 To catch the soul, when drawn into the eye,
 The fair Assyrian had not took his guide,
 Nor her soft heart in chains of pearl been ty'd.



L E T T E R S on Compliment, Business and several other Occasions.

I Here present you with a collection of useful letters on
 such subjects as may naturally occur to a young man,
 both before, and at his first setting out in the world ;
 which, if read attentively, and copied carefully, will
 soon correct his orthography, amend his manner of writ-
 ing, and serve him to form a tolerable style.

L E T T E R I.

From a father to his son, on his keeping bad company, bad hours, &c. in his apprenticeship.

Dear Son,

I Am very much concerned to hear, that you are of late fallen into bad company; that you keep bad hours, and give great uneasiness to your master, and break the rules of his family: that when he expostulates with you on this occasion, you return pert and bold answers; and, instead of promising or endeavouring to amend, repeat the offence; and have entered into clubs and societies of young fellows, who set at nought all good example, and make such persons as would do their duty the subject of their ridicule, as persons of narrow minds, and who want the courage to do as they do.

Let me, on this occasion, expostulate with you, and set before you the evil of the way you are in.

In the first place: What can you mean by breaking the rules of a family you had bound yourself by contract to observe? Do you think it is honest, to break thro' engagements into which you have so solemnly entered; and which are no less the rules of the corporation you are to be one day free of, than those of a private family? — Seven years, several of which are elapsed, are not so long a term, but that you may see it determined before you are overfit to be trusted with your own conduct; twenty-one or twenty-two years of age is full early for a young man to be his own master, whatever you may think; and you may surely stay till then, at least, to chuse your own hours, and your own company; and, I fear, as you go on, if you do not mend your ways, your discretion will not then do credit to your choice. Remember, you have no time you can call your own, during the continuance of your contract; and must you abuse your master in a double sense, rob him of his time, especially if any of it be hours of business; rob him of his rest: then break peace in his family, and give a bad example to others? and all for what?

why, to riot in the company of a set of persons, who condemn, as they teach you to do, all order and discipline; who, in all likelihood, will lead you into gaming, drinking, swearing, and even more dangerous vices, to the unhinging of your mind from your business, which must be your future support.

Consider, I exhort you, in time, to what these courses may lead you. Consider the affliction you will give to all your friends, by your continuance in them. Lay together the substance of the conversation that passes in a whole evening; with your frothy companions, after you are come from them; and reflect what solid truth, what useful lesson, worthy of being inculcated in your future life, that whole evening has afforded you; and consider, whether it is worth breaking thro' all rule and order for? — whether your present conduct is such as you would allow in a servant of your own? whether you are so capable to pursue your business with that ardour and delight next morning, as if you had not drank, or kept bad hours, over-night? if not whether your master has not a double loss and damage from your mis-spent evenings? whether the taking of small liberties, as you may think them, leads not on to greater? for, let me tell you, you will not find it in your power to stop when you will; and then, whether any restraint at all will not in time be irksome to you?

I have gone through the like servitude with pleasure and credit. I found myself my own master full soon for my discretion; what you think of yourself I know not; but I wish you may do as well for your own interest, and reputation too, as I have done for mine; and I'll assure you, I should not have thought it either creditable or honest to do as you do. I could have stood the laugh of an hundred such vain companions as you chuse, for being too narrow minded to break through all moral obligations to my master, in order to shew the bravery of a bad heart, and what an abandoned mind dared to perpetrate. A bad beginning seldom makes a good ending, and if you were assured that you could stop when you came for yourself, which is very improbable, how will you answer it to equity and good conscience, that you will do so for your master? There is, let me tell

you, more true bravery of mind in forbearing to do an injury, than in giving offence.

You are now at an age when you should study to improve, not divert, your faculties. You should now lay in a fund of knowledge, that in time, when ripened by experience, may make you a worthy member of the commonwealth. Do you think you have nothing to learn, either as to your business, or as to forming of your mind? would it not be much better to chuse the silent the sober conversation of books, than of such companions as never read or think; an author never commits any but his best thoughts to paper; but what can you expect from the laughing, noisy company you keep, but frothy prate, indigested notions, and thoughts so unworthy of being remember'd, that it is the greatest kindness to forget them?

Let me intreat you then, my dear son, for your family's sake, or for your own sake, before it be too late, to reflect, as you ought, upon the course you are enter'd into. By applying yourself to books, instead of such vain company, you will be qualified in time for the best of company, and to be respected by all ranks of men. This will keep you out of unnecessary expences, will employ all your leisure time, will exclude a world of temptations, and open and enlarge your notions of men and things, and, finally, set you above that wretched company which now you seem so much delighted with. And one thing let me recommend to you, that you keep a list of the young men of your standing within the compass of your knowledge, and for the next seven years, observe what fate will attend them; see, if those who follow not the course you are so lately entered into, will not appear in a very different light from those who do; and from the industry and prosperity of the one, and the decay or failure of the other (if their vain ways do not blast them before, or as soon as they begin the world) you'll find abundant reason every day to justify the truth of the observations I have thrown together. As nothing but my affection for you could possibly influence me to these expostulations, I hope for a proper effect from them, if you would be thought well of by, or expect any favour from,

Your loving father.

Your master will, at my request, send me word of the success of my remonstrances.

LETTER II.

Advice from an uncle to a young beginner, &c.

Dear Thomas,

AS you are now entering into the world, and will probably have considerable dealings in your business, the frequent occasions you will have for advice from others, will make you desirous of singling out among your most intimate acquaintance, one or two whom you would view in the light of friends.

In the choice of these your utmost care and caution will be necessary; for by a little mistake here you can scarcely conceive the fatal effects you may hereafter experience; wherefore it will be proper for you to make a judgment of those who are fit to be your advisers, by the conduct they have observed in their own affairs, and the reputation they bear in the world. For he who has by his own indiscretions undone himself is much fitter to be set up for a land-mark for a prudent mariner to shun his courses, than an example to follow.

Old age is generally slow and heavy, youth headstrong and precipitate: but there are old men who are full of vivacity, and young men replenished with discretion; which makes me rather point out the conduct than the age of persons with whom you should chuse to associate; tho' after all, it is a never failing good sign to me of prudence and virtue in a young man, when his seniors chuse his company, and he delights in theirs.

Let your endeavours therefore be, at all adventures, to consort yourself with men of sobriety, good sense and virtue; for the proverb is an unerring one, that says, A man is known by the company he keeps. If such men you can single out, while you improve by their conversation you will benefit by their advice; and be sure remember one thing, that tho' you must be frank and unreserved in delivering your sentiments, when occasions offer, yet that you be much readier to hear than speak; for to this

purpose it has been significantly observed, that nature has given a man two ears, and but one tongue. Lay in therefore by observation, and a modest silence, such a store of ideas, that you may, at their time of life, make no worse figure than they do; and endeavour to benefit yourself rather by other peoples ills than your own. How must those young men expose themselves to the contempt and ridicule of their seniors, who, having seen little or nothing of the world, are continually shutting out by open mouths, and closed ears, all possibility of instruction, and making vain the principal end of conversation, which is improvement. A silent young man makes generally a wise old one, and never fails of being respected by the best and most prudent men. When therefore you come among strangers, hear every one speak before you deliver your own sentiments; by this means you will judge of the merit and capacities of your company, and avoid exposing yourself, as I have known many do, by shooting out hasty and inconsiderate bolts, which they would have been glad to recal, when perhaps a silent genius in company has burst out upon them with such observations, as have struck consciousness and shame into the forward speaker, if he has not been quite destitute of inward reproach.

I have thrown together, as they occurred, a few thoughts, which may suffice for the present to shew my care and concern for your welfare. I hope you will constantly, from time to time, communicate to me whatever you shall think worthy of my notice, or in which my advice may be of use to you. For I have no pleasure in this life equal to that which the happiness of my relations gives me. And of this you may be assured; for I am, and ever must be,

Your loving uncle.

LETTER III.

General rules of conversation, &c. From a Clergyman
to a young Tradesman.

Dear Henry.

AS I had not an opportunity of saying so much to you as I wished when you were last here; I send this to inform you of some things, in your general conversation, which I think would be proper for you to observe and amend; particularly your excessive itch for talking; which discovers itself alike on all occasions. I have always flattered myself, that you do not want sense; and am willing to hope I have not been deceived: but the dangerous self-sufficiency of most young men seems violently to have seized you, which, I hope, a little reflexion will remove.

The art of rendering yourself agreeable in conversation is worth your serious study; 'tis an advantage few can boast, tho' sought after by all; and nothing is so constant an enemy to success in those who would excel in this art, as the harbouring an opinion of their own proficiency, before they have attained to any tolerable degree of knowledge in what they imagine themselves possessed of. Conversation, where it is rightly managed, must be so conducted as to let each member of the company have a share in the pleasure and applause it affords; if you are six in number, after you have told a story, or made any remark which gives a general satisfaction; you must consider it the right of another to call your attention in his turn; and, unless particularly requested, it betrays a great weakness to follow yourself. No doubt you love to be admired; and have not others the same passion? you believe your wit more brilliant than theirs; are you sure that they are not of the same opinion as to their own? If a man speaks little, you must not from thence, conclude him willing to give up every claim to conversable merit; perhaps he cannot sing; but to be sure he is as desirous of having his peculiar humour, or his dry joke, applauded, as you are to

be intreated another song. If he is no mathematician, perhaps he is versed in religious disputation; if he despises plays, he may admire history; though he understands not geography, he may yet know how to describe the humours of mankind; and tho' he pretends not to politics, he may have a turn for some more useful science. When these are considered, if his modesty is great, you cannot oblige him more than by throwing an opportunity in his way to display his capacity on the subject he believes himself most able to handle with advantage; for, in order to support a thorough good humour, a man must be pleased with himself as well as with others. When this is properly taken care of, conversation seldom fails to prove entertaining; and to the neglect of this are owing many of the yawning hours spent in companies composed of men not incapable of behaving agreeably.

The manner of telling a story is also worth your notice; you have known the pleasure of hearing a long one well told; Mr French has an admirable talent in this way; but then you must observe, that half the pleasure he gives, arises from his happily avoiding any of the silly digressions, which are the great cause of a story's seeming tedious; you never hear him mingle his relation with, I remember very well it was the same day that Squire Worthy's son came of age.—I bought my bay nag the very day before, at such a fair, being a Friday, that year;—or, I can scarce think of it without laughing;—or, but, however, as I was saying:—and a hundred more such dead weights to attention. Nor does he ever praise a story before he relates it; a fatal rock to many a good relation; for when a story wants a preparatory recommendation, it ought not to be told; and even when the relation is possible, the generality of auditors are apt to persuade themselves,

The mountain labours, and a mouse is born.

These are loose and general hints; yet by a due improvement of them you will find yourself very sensibly grow more and more agreeable wherever you converse. An easy and becoming freedom you already have, and

by the addition of discretion in your use of them, and complaisance to others, you will probably succeed in the desire so predominant in you, of being admired by men of sense and judgment. Which will be no small pleasure to,

Your sincere friend.

LETTER IV.

A young man in business, to a father, desiring leave to address his daughter.

SIR,

I HOPE the justness of my intentions will excuse the freedom of these few lines, whereby I am to acquaint you of the great affection and esteem I have for your daughter. I would not, Sir, offer at any indirect address, that should have the least appearance of inconsistency with her duty to you and my honourable views to her; chusing, by your influence, if I may approve myself to you worthy of that honour, to commend myself to her approbation. You are not insensible, Sir, by the credit I have hitherto preserved in the world, of my ability, by God's blessing, to make her happy; and this the rather emboldens me to request the favour of an evening's conversation with you at your first convenience, when I will more fully explain myself, as I earnestly hope to your satisfaction, and take my encouragement or discouragement from your own mouth. I am, Sir, mean time, with great respect,

Your most obedient and humble servant.

LETTER V.

From a young lady to her father, acquainting him with a proposal of marriage made to her.

Honoured Sir,

Canterbury, June 10.

I THINK it my duty to acquaint you, that a gentleman of this town, by name Mr. Truelove, and by business a linen draper, has made some overtures to

my cousin Telltruth, in the way of courtship to me. My cousin has brought him one or twice into my company, which he could not well decline doing, because he has dealings with him, and has an high opinion of him and his circumstances. He has been set up four years, and has very good business, and lives in credit and fashion. He is about twenty nine years old, and a likely man enough; he seems not to want sense or manners; and is come of a good family. He has broke his mind to me, and boasts how well he can maintain me; but I assure you, Sir, I have given him no encouragement and told him that I had no thoughts of changing my condition, yet a while; and should never think of it but in obedience to my parents; and I desired him to talk no more on that subject to me. Yet he resolves to persevere, and pretends extraordinary affection and esteem. I would not, Sir, by any means, omit to acquaint you with the beginning of an affair that would be want of duty in me to conceal from you, and shew a guilt and disobedience unworthy of the kind indulgence and affection you have always shewn to, Sir,

Your most dutiful daughter.

My humble duty to my honoured mother, love to my brothers and sisters; and respects to all friends. Cousin Telltruth, and his wife and sister, desire their kind respects. I cannot speak enough of their civility to me.

L E T T E R VI.

The young gentleman's letter to the father, apprising him of his affection for his daughter.

S I R,

Canterbury, June 12.

I TAKE the liberty, though personally unknown to you, to declare the great value and affection I have for your worthy daughter, whom I have had the honour to see at my good friend Mr Telltruth's. I should think myself intirely unworthy of her favour, and of your approbation, if I could have a thought of influencing her

resolution but in obedience to your pleasure ; as I should on such a supposition, offer an injury likewise to that prudence in herself, which, I flatter myself, is not the least of her amiable perfections. If I might have the honour of your countenance, Sir, on this occasion, I would open myself and circumstances to you, in that frank and honest manner which should convince you of the sincerity of my affection for your daughter ; and at the same time of the honourableness of my intentions. In the mean time, I will in general say, that I have been set up in my business, in the linnen drapery way, upwards of four years ; that I have a very good trade for the time ; that I had 2000/. to begin with, which I have improved to 2500/. as I am ready to make appear to your satisfaction ; that I am descended of a creditable family ; have done nothing to stain my character ; and that my trade is still farther improvable, as I shall, I hope, enlarge my bottom. This, Sir, I thought but honest and fair to acquaint you with, that you might know something of a person, who sues to you for your countenance, and that of your good lady, in an affair that I hope may prove one day the greatest happiness of my life ; as it must be if I can be blessed with that, and your dear daughter's approbation. In hope of which, and the favour of a line, I take the liberty to subscribe myself, good Sir,

Your most obedient humble servant.

L E T T E R VII.

From a country chapman beginning trade, to a city dealer, offering his correspondence.

S I R,

Leeds, Oct. 20.

THE time of my apprenticeship with Mr. Trusty, of this town, being expired, I am just going to begin for myself in Wakefield, having taken a shop there for that purpose. And as I know the satisfaction you always gave to my master in your dealings, I make an offer to you of my correspondence, in expectation that you will use me as well as you have done him, in what-

ever I may write to you for. And this I the rather expect, as you cannot disoblige Mr. Trusty by it, because of the distance I shall be from him; and I shall endeavour to give you equal content with regard to my payments, &c. Your speedy answer, whether or no, you are disposed to accept of the offer, will oblige

Your humble servant.

LETTER VIII.

From a father to a son, to dissuade him from the vice of drinking to excess.

My dear son,

IT is with a grief proportioned to my love, which is extreme, that I understand you have of late neglected your studies, and given yourself up to the odious vice of drinking: what shall I say, what shall I do, to engage you to quit this pernicious practice, before it becomes such a habit, that it will be impossible, or at least very difficult for you to cast it off? Let me require, let me intreat you, to give a suitable attention to what I have to say on this head, which I shall offer rather as a warm friend, than an angry father; and as I address myself to your reason, I will leave it to yourself to judge of the truth of the observation I have to make to you.

In the first place, with respect to health, the greatest jewel of this life, it is the most destructive of all vices: vertigoes, asthma's, palsies, gouts, appoplexies, cholics, fevers, consumptions, dropsies, stone, and hypocondriac diseases, are naturally introduced by excessive drinking.

All the rest of the vices together, are not so often punished with sudden death as this one: what fatal accidents, what quarrels, what breaches between friend and friend, are owing to it!

Then, in the second place, How does it deface reason, destroy all the tender impulses of nature, make a wise man a fool, and subject persons of the brightest parts to the contempt of the weakest, and even, in time, extinguish those shining qualities which constitute the difference between a man of sense and a blockhead!

For, as a certain very eminent author very well observes, fools have generally stronger nerves, and less volatile spirits, than men of fine understandings; that which will rouse the one, will make the other either stupid or frantic, and though it sometimes, while the fit continues, strengthens the imagination, yet it always depresses the judgment; and, after the fit is over, both those faculties languishes together, till, in time, it quench the imagination, impairs the memory, and drowns the judgment.

Most other vices are compatible, as the same author observes, with several virtues; but drunkenness runs counter to all the duties of life: A great drinker can hardly be either a good husband, a good father, a good son, a good brother, or a good friend: it lays him open to the worst company, and his company frequently subjects him to lewd women, gaming, quarrels, riots, and often murders. All other vices, even, the greatest of vices, as ambition, unchastity, bigotry, avarice, hypocrisy, detest this unnatural and worse than beastly vice; for the beasts themselves, even the uncleanest of them, know nothing of it, much less practise it.

Other vices, indeed, make men worse, says this judicious author; but this alters men from themselves, to that degree, that they differ not more from their present companions, than from their former selves. A habitude of it will make the prudent inconsiderate, the ambitious indolent, the active idle, and the industrious slothful; so that their affairs are ruined for want of application, or by being intrusted in the hands of those who turn them wholly to their advantage, and, in the end, to the ruin of those who employ them.

I have written a long letter already: yet have I still more to say; which, that I may not tire you, I will leave to another opportunity.

Your most indulgent father.

LETTER IX.

From an apprentice to his master, begging forgiveness
for a great misdemeanor.

Good Sir,

I Am so ashamed of myself for the last occasion I have given you to be angry with me, after my repeated promises of amendment, that I have not the courage to speak to you. I therefore take this method of begging you to forgive what is past; and let this letter testify against me, if ever I wilfully or knowingly offend again for the future. You have children of your own. They may possibly offend; tho' I hope they never will as I have done. Yet, Sir, would you not wish they might meet with pardon, if they should, rather than reprobation?— My making or my ruin, I am sensible, lies in your breast. If you will not forgive me, sad will be the consequence to me, I doubt. If you do you may save a soul, as well as a body, from misery; and I hope, Sir, you will weigh this with your usual goodness and consideration. What is past, I cannot help; but for what is to come, I do promise, if God gives me health and power, that my actions shall testify for me how much I am, good Sir,

Your repentant and obliged servant.

LETTER X.

The master's answer.

Robert,

YOUR letter has affected me so much, that I am willing once more to pass over all you have done. Surely at last I may depend on these your solemn assurances, and, as I hope, deep contrition! If not, be it as you say, and let your letter testify against you for your ingrateful baseness; and for me, in my readiness (which

however shall be the last time) to forgive one that has been so much used to promise, and so little to perform. But I yet hope for better, because I yet wish you well; being as you use me,

Yours or otherwise.

L E T T E R XI.

From an apprentice, where the master is too remiss in his own affairs.

Honoured Sir and Madam,

YOU desire to know how I go on in my business. I must needs say, very well in the main; for my master leaves every thing, in a manner, to me. I wish he did not, for his own sake. For though I hope he will never suffer on the account of any wilful remissness or negligence, much less want of fidelity, in me, yet his affairs do not go on so well as if he was more in them, and less in the tavern. But it becomes not me to reflect upon my master, especially as what I may write or say on this head, will rather expose his failings, than do him service: for as they must be his equals that should reprove him, so all a servant can observe to others will do more harm than good to him. One thing is at present in my own power, and that is, to double my diligence, that his family suffer as little as possible by his remissness. And another, I hope, by God's grace, will be, and that is, to avoid in myself, when my time comes, those failings which I see so blameable in him. And as this will be benefiting properly by the example (for that bee must be worse than a drone, that cannot draw honey from a bitter as well as a sweet flower) so it will give you the pleasure of knowing, that your good instructions are not thrown away upon me, and that I am, and ever will be,

Your dutiful son.

LETTER XII.

To a country correspondent, modestly requesting a balance of accompts between them.

S I R,

I Find myself constrained, by a present exigence, to beg you to balance the accompt between us. Though matters have run into some length, yet would I not have applied to you, had I known so well how to answer my pressing occasions any other way. If it suits you not to pay the whole, I beg, Sir, you would remit me as much towards it as you can, without prejudice to your own affairs; and it will extremely oblige

Your most humble servant.

LETTER XIII.

In answer to the preceding.

S I R,

I Am very glad I have it in my power to send you now, directly one hundred pounds, on accompt between us, which I do by our carrier, who will pay you in specie. I will soon remit you the balance of your whole demand, and am only sorry that I gave occasion for this application for what is so justly your due. When I send you the rest, which will be in a few days, if I am not greatly disappointed, I will accompany it with an order, which will begin a new debt; which I hope to be more punctual in discharging, than I have been in the last. I am very sincerely,

Your friend and servant.

LETTER XIV.

A Gentleman to a Lady, professing an aversion to the tedious forms of courtship.

Dear Madam,

I Remember that one of the ancients, in describing a youth in love, says, he has neither wisdom enough to speak, nor to hold his tongue. If this be a just description, the sincerity of my passion will admit of no dispute: and whenever, in your company, I behave like a fool, forget not that you are answerable for my incapacity. Having made bold to declare thus much, I must presume to say, that a favourable reception of this will, I am certain, make me more worthy of your notice; but your disdain would be what I believe myself incapable ever to surmount. To try by idle fallacies, and airy compliments, to prevail on your judgment, is a folly for any man to attempt who knows you. No, madam, your good sense and endowments have raised you far above the necessity of practising the mean artifices which prevail upon the less deserving of your sex; you are not to be so lightly deceived; and if you were, give me leave to say, I should not think you deserving of the trouble that would attend such an attempt.

This, I must own, is no fashionable letter from one who, I am sure, loves up to the greatest hero of romance: but as I would hope, that the happiness I sue for, should be lasting, it is certainly most eligible to take no step to procure it but what will bear reflexion; for I should be happy to see you mine, when we have both out-lived the taste for every thing that has not virtue and reason to support it. I am, Madam, notwithstanding this unpolished address,

Your most respectful admirer,

And obedient servant,

LETTER XV.

To a friend, who had promised to lend a sum of money to answer a critical exigence, and drove it off to the last.

Dear Sir,

YOU were so kind as to tell me, a fortnight ago, that you would lend me one hundred pounds on my bond, to answer a demand that my credit would be otherwise a sufferer by. And you were pleased to say, you would have me look no further, and that I should certainly have it in time. I have looked no further, Sir; and the day of payment approaching, you cannot imagine how my mind has suffered by being not absolutely sure of having the money to answer the demand. I hope Sir, nothing has happen'd to make you alter your mind; for, at this short notice, I shall not know to whom to apply to raise it. In the utmost perturbation of mind, for fear of the worst, my credit being wholly at stake, I beg your answer, which I hope will be to the satisfaction of, Sir,

Your obliged humble servant.

LETTER XVI.

The answer, excusing the pain he had given his friend by his remissness.

Dear Sir,

I will attend you this afternoon with the money, which I had always great pleasure in the thought of supplying you with; and I am most heartily vexed with myself, for giving you the pain and uneasiness that must have attended a mind so punctual as yours, and in a case so critically circumstanced. But I hope you'll forgive me, tho' I can hardly forgive myself. I am, Sir, as well on this, as on any other occasion in my power.

Your sincere friend and servant.

LETTER XVII.

A sailor to his betrothed mistress.

My dear Peggy,

Barbadoes, Oct. 9.

IF you think of me half so often as I do of you, it will be every hour, for you are never out of my thoughts; and, when I am asleep, I constantly dream of my dear Peggy. I wear my half bit of gold always at my heart, tied to a blue ribband round my neck; for true blue, my dearest love, is the colour of colours to me. Where, my dearest, do you put yours? I hope you are careful of it: for it would be a bad omen to lose it.

I hope you hold in the same mind still, my dearest dear; for God will never bless you, if you break the vows you have made to me. As to your ever faithful Andrew, I would sooner have my heart torn from my breast, than it should harbour a wish for any other woman besides my Peggy. O my dearest love! you are the joy of my life: my thoughts are all of you; you are with me in all I do; and my hope and my wishes are only to be yours. God send it may be so.

Our captain talks of sailing soon for England; and then, and then, my dearest Peggy!—O how I rejoice, how my heart beats with delight, that makes me I cannot tell how, when I think of arriving in England, and joining hands with my Peggy, as we have hearts before, I hope: I am sure, I speak for one.

John Arthur, in the good ship George, Capt. Plowsea, which is returning to England (as I hope we shall soon) promises to deliver this into your own dear hand; and he will bring you too, six bottles of citron-water, as a token of my love. It is fit for the finest ladies taste, it is so good, and is what they say ladies drink, when they can get it.

John says, he will have one sweet kiss of my dearest Peggy, for his care and pains. So let him, my best love; for I am not of a jealous temper. I have a better opinion of my dearest, than so.—But, oh, that I was in his place—One kiss should not serve my turn,

though I hope it may his. Yet, if he takes two, I'll forgive him; one for me, and one for himself. For I love John dearly, and so you may think. Well, what shall I say more? — Or, rather, what shall I say next? — For I have an hundred things crouding in upon me, when I write to my dearest; and, alas, one has so few opportunities! But yet I must leave off; for I have written to the bottom of my paper. Love then to all friends, and duty to both our mothers, concludes me

Your lover till death.

L E T T E R XVIII.

Her A N S W E R.

Dear Andrew,

FOR so I may call you now we are sure; and so my mother says. This is to let you know, that nothing shall prevail upon me to alter my promise made to you, when we parted, with heavy hearts enough, that's true; and yet I had a little incling given me, that Mr. Plank's son the carpenter would be glad to make love to me; but do you think I would suffer it, no, indeed; for I doubt not your loyalty to me; and do you think I will not be as loyal to you? — To be sure I will. These sailors run such sad chances, said one that you and I both know. They may return, and they may not. Well, I will trust in God for that, who has returned safe to his friends, their dear Andrew; so many a time, and often. They will have a mistress in every land they come to, said they. All are not such naughty men, said I; and I'll trust Andrew Trusty all the world over. For why cannot men be as faithful as women tro'? and for me, I am sure no love shall ever touch my heart but yours.

God send us a happy meeting! Let who will speak against sailors, they are the glory and the safe-guard of the land; and what would have become of Old England long ago but for them? I am sure the lazy, good-for-nothing land-lubbers would never have protected us from our cruel foes. So sailors are, and ever shall be,

L E T T E R S.

esteemed by me; and of all sailors, my dear Andrew Trusty. Believe this truth from,

Your faithful, &c.

P. S. I had this letter writ in readiness to send you, as I had an opportunity; and the captain's lady undertakes to send it with hers. That is very kind and condescending: Is it not?

L E T T E R XIX.

Of Congratulation.

S I R,

DO not admire that I am one of the last, that congratulate with you, your good fortune: the joy which I conceived was so extreme, that it could afford me no sooner the liberty to acquit myself. I know the most of your friends have prevented me, but being their satisfaction is small, I do not wonder if their diligence be the greater. As for my part, my idleness increaseth my merit, since stay and protraction proceeded only from the excess of the gladness of,

S I R,

Your most humble servant,
Tom. Joyful.

L E T T E R XX.

A N S W E R.

S I R,

Since you take part in the good fortune, which has befallen me, you must also participate in the advantage of the new credit which it has brought me into. This I advertise you of, to the end, that you let not any occasion slip, wherein you may procure a proof of my friendship, nor forget this advice, which I give you; for believe me, I am impatient to have an opportunity of shewing you how much I am,

S I R,

Your friend and servant,
Timothy Grateful.

LETTER XXI.

Of thanks, &c.

S I R,

I Received the favour of yours with a kind of present ; and know not indeed at this time any other way to shew my gratitude, than by my hearty thanks for the same. Every thing you do carries a charm with it, your manner of doing it is as agreeable as the thing done. In short, Sir, my heart is full, and would overflow in your praise, did I not stop, and subscribe myself

Your most obliged,

May 13th, }
1757. }

And obedient humble servant,

Thomas Thankful.

LETTER XXII.

Requiring the payment of money, which serves for an acquittance.

S I R,

I Find, upon stating the accompt between you and me, that several considerable sums of money are due to me from you ; wherefore having occasion for thirty pounds, I desire you to send it me by the bearer hereof (or here name the carrier) and in so doing you will very much oblige me.

As to the payment thereof, this letter, and the bearer's acquittance, shall be your sufficient security and discharge for so much money. In witness whereof, I have hereunto set my hand, the sixth day of May, 1759.

John Tradewell.

LETTER XXIII.

ANSWER.

S I R,

I Send by the bearer (or the carrier) thirty pounds according to your desire, and have taken his receipt for it ; but, because you know I send but for small parcels of goods at a time, therefore I desire you always

for the future, when I send you money, that you mention in the acquittances the names of the goods for which you received the money, or at least I would have you to mention what money remains unpaid; for thro' want of such certain knowledge, some poor country tradesmen have found great loss, either by the master or their apprentices receiving the money sent, and not mentioning for what goods. Pray take it not ill that I thus write, for I am satisfied of your honest dealing; but know not the servants you intrust to receive the money, I send in small parcels. I rest

Your friend and chapman,

James Punctual.

LETTER XXIV.

From a servant in his master's absence to one of his country customers.

Mr. Thomas Merchant,

S I R,

London, Jan. 23. 1759.

I Received yours, and for answer say, I am very sorry to hear that the goods have not answered your expectation; however, have placed them to the credit of your accompt, and returned others in their stead by Robert Derham the carrier: I know my master would willingly oblige you in any thing in his power, and as his faithful servant I have herein done my utmost to give you satisfaction, who am

To Mr. Tho. Merchant,
clothier in Halifax.

} Your most humble servant,
James Windsor.



LETTER XXV.

From a youth at school in Durham to his parents in London.

Durham, January, 8. 1759.

Honoured father and mother,

I Received your kind letter of the 24th of November past, and also the several things therein mentioned, by the Newcastle waggon, for which I return you my most humble and hearty thanks, they coming very seasonably for the relief of my occasions.—I begin to make pretty good improvement in my learning now (tho', at first, it seemed a little irksome and hard) and I hope to gain the point at last for which you sent me hither. Pray accept of my most humble duty to yourselves, and give my kind love to my brothers and sisters, and to my old play-fellows and neighbours; this being all at present from,

Honoured parents, your dutiful son,
Peter Wise.

LETTER XXVI.

From an apprentice to his friends.

Honoured father and mother,

BY these I let you know, that by your care and conduct I am well settled, and pleased with my station, and could not but in duty return you my hearty thanks in a grateful acknowledgment of your love and tender care of me: I will endeavour to go through my business chearfully; and having begun well, I hope I shall persevere to do so to the end, that I may be a comfort to you hereafter, and in some measure make a return of your love and kindness to me, who am

Your dutiful, obedient son,
And most humble servant,
Jeremiah Careful.

LETTER XXVII.

Of recommendation.

S I R,

THE bearer hereof, James Roberts, I send you, as one whose honesty you may rely on, and my experience of his conduct and fidelity give me a certain kind of confidence in recommending him to you; but you know me, Sir, and I believe you cannot in the least think that I would recommend any one to you, if I had the least umbrage of suspicion or doubt concerning their probity. I am, Sir,

Your real friend and humble servant,
James Goodman.

LETTER XXVIII.

To a country chapman.

Mr. James Tradewell,

S I R,

London, Dec. 8. 1759.

YOU and I have formerly had trading together, and it is not my fault that we do not continue so to do; for assure yourself, I have a great value and respect for you, and on that account none shall be more ready to oblige you in what I may; and pray let us once more re-assume our dealing together, and you shall find, that for any goods you have occasion for in my way, none shall use you more kindly than,

S I R,

Your real friend, and humble servant,
George Punctual.

LETTER XXIX.

By way of petition.

Honoured Sir,

I Am uncertain whether my late misfortunes have come to your knowledge; however, I most humbly pre-

sume on your good nature, being assured by sundry examples of your compassion, that you will think of, and take pity on the distressed: therefore, as an object truly deserving compassion, I most humbly implore and petition you to consider the many losses and disappointments that I have met with in my wayward and unlucky fortune, which have reduced me to such necessitous circumstances, that I cannot possibly proceed in my affairs: you was pleased once to stile me your friend, and so I was indeed; and so I would certainly do now, and shew it by a signal proof of kindness, if our circumstances were changed, by standing between you and misfortune, and screening you from the malevolent and inauspicious influences of cross-grained stars. I doubt not, Sir, but your generosity and goodness is as great; and I hope with all humility, you will be pleased to interpose your good offices, &c. between unlucky fortune, and,

S I R,

Your very humble servant,

George Shipwreck.

L E T T E R XXX.

To a friend to desire him to endeavour to end a difference between two of their friends.

Loving cousin,

AFTER my love to you, this is to let you know, that two of your friends D. N. and J. F. are going to law upon a trifling occasion. I pray come over and see to reconcile them, or send your advice how I may labour to do it, and I shall be very much obliged to you. I remain

Your affectionate kinsman and humble servant,

G. T.

LETTER XXXI.

The answer, with advice.

Dear friend,

WITH my unfeigned love to you, I received your letter, and it grieves me to hear that our friends should be for going to law, and not compelled to it; for then much money is spent upon lawyers, to end their differences by jury-men, when two friends may do it better.

But if one of the parties is for going to law, and the other not, then he that is against going to law is the most christian, and is not to be blamed, though he use the law of the nation to defend himself; neither, indeed, can he avoid it, if his adversary seeks revenge, and so forces him to spend his money in his defence.

But you desiring my advice about reconciling those two friends, they having not yet see'd lawyers, persuade the man that is for going to law, that two friends chosen by both parties may end their differences, or one person only.

And when they have nominated two to end it, then persuade the two parties to put into the hands of those arbitrators, 5 *l.* or more a-piece, according to the value of the trespass. This agreed on, next,

Let the parties sign and seal general releases to each other; then the arbitrators must dispose of the money as they see good, to the party, that received the wrong, &c.

Thus differences among friends may be composed at a much cheaper and better rate than by trial at the assizes.

But yet 'tis best, when contending parties agree by themselves, as Christ commands (Mat. xviii. 15.) and forgive trespasses (Mat. iv. 12.)

Besides this, having general releases, it cuts off all former differences, and saves from divers expences, and from bonds of arbitration and awards, which, tho' they cost money often prove of no effect.

Would to God the advice above, of reconciling men at difference, would take effect in general, then would peace flourish, &c.

I remain your friend,

Jerem. Peaceable,

LETTER XXXII.

From a gentleman to a gentlewoman, to beg pardon for an offence.

Madam,

TIS in vain to contend with my judge, and therefore, though I know my fault has been aggravated beyond what it could justly bear, yet I will rather submit myself to your sentence than go about to extenuate my crime: I am guilty enough that I have offended you, though I never designed it; and when you have done yourself justice, by inflicting upon me what you think I merit for my offence, then I will plead my innocency, and let you know I always was so far from saying any thing that might reflect upon your fame, that in my opinion, not innocence itself is more unspotted, nor can unsullied snow appear more white: 'tis true, I am guilty to give you ground to think I have offended; but my offence is my misfortune rather than my fault. But, Madam, what if I appeal from your severer justice to your mercy? I know you are not inexorable, nor did you suck the breasts of wolves and tygers: and since there's so much sweetness in your eyes, there needs must be some pity in your heart, at least so far as to forgive a poor repenting criminal. And since you are such a bright idea of the author of all goodness, you cannot, but, like him, delight in shewing mercy. I shall henceforth endeavour to be like Cæsar's wife, not only free from guilt, but from suspicion: and further, shall, to expiate my offence, remain

Your truly sorrowful,

And much afflicted humble servant,

Roger Beggardon,

LETTER XXXIII.

ANSWER.

S I R,

I Received your letter, and must let you know, that whatsoever reflects upon my fame, (which is far dearer to me than my life) tho' at the most remote distance, is what I cannot but think a fault, and therefore know not how you can be innocent; and, indeed, to plead your innocence, is to accuse me of injustice, in charging you with a crime: but, from what you write, I am inclined to believe, that in what you said, you designed no injury to me; and that it was a crime of inadvertence rather than of malice. And for that reason upon your profession of repentance I freely pardon you; but charity itself does not enjoin me to hug the man I pardon in my bosom: you must not expect therefore to be admitted to the former freedoms you enjoy'd, since you have made so ill an use of 'em, till you have given some more substantial proofs of the sincerity of your repentance. And tho' I pardon this your first offence, yet if you should relapse into your former follies, you must expect a much severer treatment: for then I shall no more esteem myself, as I now do,

Your reconciled friend to serve you,
Sarah Forgivewell.

LETTER XXXIV.

From a gentleman to his mistress, who seeing no hopes of success, respectfully withdraws his suit.

Madam,

I Make no doubt but this will be the welcomest letter that you ever received from me; for it comes to assure you, that it is the last trouble you will ever have from me. Nor should I have so long with-held from you this satisfaction, had not the hope your brother gave me, that in time I might meet with a happier fate, made me willing to try every way to obtain your fa-

your. But I see, all the hopes given me by his kind consideration for me, and those that my own presumption have made me entertain, are all in vain: and I will therefore rid you of so troublesome an importuner, having nothing to offer now but my ardent wishes for your happiness; and these, Madam, I will pursue you with to my life's latest date.

May you, whenever you shall change your condition, meet with a heart as passionately, and as sincerely devoted to you as mine! and may you be happy for many, very many years, in the man you can honour with your love: for, give me leave to say, Madam, that in this, my end will be in part answered, because it was most sincerely your happiness I had in view, as well as my own, when I presumptuously hoped, by contributing to the one, to secure the other. I am, Madam, with the highest veneration,

Your most obedient humble servant,

LETTER XXXV.

From a father to a daughter in service, on hearing of her master's attempting her virtue.

My dear daughter,

I Understand, with great grief of heart, that your master has made some attempts on your virtue, and yet that you stay with him. God grant that you have not already yielded to his base desires! For when once a person has so far forgotten what belongs to himself, or his character, as to make such an attempt, the very continuance with him, and in his power, and under the same roof, is an encouragement for him to prosecute his designs. And if he carries it better, and more civil at present, it is only the more certainly to undo you when he attacks you next. Consider, my dear child, your reputation is all you have to trust to. And if you have not already, which God forbid! yielded to him, leave it not to the hazard of another temptation; but come a-

way directly (as you ought to have done on your own motion) at the command of

Your grieved and indulgent father.

LETTER XXXVI.

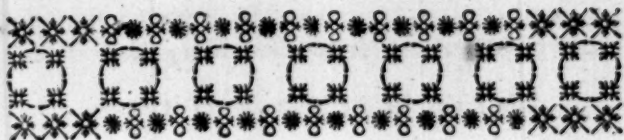
The daughter's answer.

Honoured Sir,

I Received your letter yesterday, and am sorry I stay-
ed a moment in my master's house after his vile at-
tempt. But he was so full of his promises of never of-
fering the like again, that I hoped I might believe him;
nor have I yet seen any thing to the contrary: but am
so much convinced, that I ought to have done as you
say, that I have this day left the house; and hope to
be with you soon after you will have received this let-
ter. I am,

Your dutiful daughter.





PRECEDENTS in Law and Business, that all young men ought to know and be acquainted with.

Supercriptions for Letters.

TO the king, or, To the king's most excellent majesty.

To the queen, or, To the queen's most excellent majesty.

To the prince, or, To his royal highness. To the princess, or, To her royal highness.

And in case of the lords spiritual, viz. To his grace the lord Archbishop of Canterbury; To the right reverend father in God, &c. The same to the archbishop of York. If to the other bishops, To the right reverend father in God, Archibald lord bishop of, &c. And to the inferior clergy, To the reverend doctor, &c. To the reverend Mr. &c.

To write to temporal lords, viz.

To his grace the duke of——

To the right honourable the marquis of——

To the right honourable the earl of——

To the right honourable the lord viscount——

To the right honourable the lord——

All the sons of the nobility, though not the immediate heirs, are to be dignified with the title of honourable, as their due by birth-right. And to a knight and baronet by virtue of his patent, the title of honourable and right worshipful is given. As likewise the former to a knight, and worshipful to an esquire.

Every privy-counsellor, though not a nobleman is stiled right honourable: all ambassadors have the stile of excellency, as likewise hath the lord lieutenant of Ireland, and the captain general of his majesty's forces when in being; nor has the mayor of London, during his mayoralty, a less title than the right honourable; and the sheriffs, during their office are stiled right worshipful; not

does any thing less than the title of esquire extend to to the mayors of any corporation during their office.

Directions for the beginning of Letters.

TO the king, Sir, or, May it please your majesty.

To the queen, Madam, or, May it please your majesty.

To the prince, Sir, or, May it please your royal highness.

To a duke, My lord, or, May it please your grace.

To a duchess, Madam, or, May it please your grace.

To a marquis, My lord, or, May it please your lordship.

To a marchioness, Madam, or, May it please your ladyship.

To an earl, viscount, or baron, Right honourable, or, May it please your lordship. In viscount or viscountess, sound not the / in the first syllable.

To a countess, viscountess, or baroness, Madam, or, Right honourable, or, May it please your ladyship.

To a knight, Sir, or, Right worshipful; and to his lady, Madam, or, May it please your ladyship.

To a mayor, justice of peace, esquire, &c. Sir, or, May it please your worship.

At subscribing your name end with the same title you began with. As, My lord, Your lordships, &c.



Of Wills and Testaments.

A WILL, according to the common acceptation, is the declaration of a person's mind or intent, in relation to what he would have done after his death. The common law calls that a will, whereby lands and tenements are devised; but when it concerns only chattels, viz. moveables or what is not inheritable, it is called a testament; where lands are given by will, it is termed a

devise; and where goods and chattles, commonly termed a personal estate, are bequeathed, it is called a legacy.

Devises of lands, &c. must be in writing, signed by the devisor or person giving, generally called the testator, or some person by his express direction, in the presence of three credible witnesses. If a personal estate of above the value of thirty pounds be bequeathed by word of mouth, which the law calls a nuncupative will, it must be likewise done in the presence of three witnesses.

FORM of a WILL.

IN the name of God, Amen. I, A. B. of, &c. being thro' the abundant mercy and goodness of God, tho' weak in body, yet of a sound and perfect understanding and memory, do constitute this my last will and testament, and desire it to be received by all as such: *imprimis*, I most humbly bequeath my soul to God, my Maker, beseeching his most gracious acceptance of it, thro' the all-sufficient merits and mediation of my most compassionate Redeemer, Jesus Christ, who gave himself to be an atonement for my sins, and is able to save, to the uttermost, all that come unto God by him, seeing he ever liveth to make intercession for them, and who, I trust, will not reject me, a returning penitent sinner, when I come to him for mercy; in this hope and confidence, I render up my soul with comfort, humbly beseeching the most blessed and glorious Trinity, one God most holy most merciful and gracious, to prepare me for the time of my dissolution, and then to take me to himself into that peace and rest, and incomparable felicity, which he has prepared for those that love and fear his holy name, Amen, blessed be God. *Imprimis*, I give my body to the earth, from whence it was taken, in full assurance of its resurrection from thence at the last day: as for my burial, I desire it may be decent, without pomp, or state, at the discretion of my dear wife, and my executors hereafter named, who, I doubt not, will manage it with all requisite prudence. As to my wordly estate, I will and positively order, That all my debts be paid. *Item*, I give to my dear and loving wife, for term of life, this house wherein I now dwell, with all the

furniture, and the lands and tenements that ly about it; and after her death, to my only son G. and his heirs and assigns for ever; to whom I leave also, from the time of my death, my other two estates situate in the parish of T. he paying to each of his sisters, D. and F. 5000 *l*. And if he die before them, and without issue, then his land (all but the value of 5000 *l*. which I freely empower him to dispose of as he shall think fit) shall descend, and belong equally to those my two daughters. My poor debtors, who owe me some small matters, which because they are in low condition, and not well able to pay them, I freely remit them all, forgiving such my debtors, as I desire God should forgive my debts for Christ's sake. I give 60 *l*. to be distributed according to the discretion of my executors, among such of my neighbours of this parish, as they shall apprehend most to want such assistance, but who do not at present receive alms, nor have any allowance from the parish. I give 30 *l*. towards the good work for teaching poor children to read, and to say their catechism, in charity schools. The small remainder of my estate I give to my very good friends, and dear and kind relations, G. R. and L. O. to be divided equally between them: and do constitute them executors of this my last will and testament, and trustees for my wife and children. In witness whereof, I have hereunto set my hand and seal, the 3d day of June, in the year of our Lord, 1759.

Witness, T. B.
R. T.
R. B.

A. B. (L. S.) here I take
off my seal, and do declare
this to be my last will and
testament.

Another WILL.

*I*N the name of God, Amen. I, A. M. of, &c. being in perfect health (praised be God) do make this my last will and testament as followeth. Imprimis, I give to my daughter L. M. 20 pounds of, &c. Item, I give to my daughter C. M. 50 pounds of like lawful money, and the box in the room where I ly, marked (P. Q.) and all the linen therein, with some other goods, and the rest and residue of my goods and chattles, and personal estate, after payment of my debts, legacies, and

funeral expences; and unto my son S. M. whom I make sole executor of this my last will and testament, I give demise, and bequeath to him and his heirs, all, and every my messuages, lands, tenements, and hereditaments whatsoever and wheresoever, which I also charge with the payment of my said legacies. In witness whereof I have hereunto set my hand and seal, the 23d day of June, and in the year of our Lord, 1759.

Sealed, published, and declared by the above named A. M. for and as his last will and testament, in the presence of us, A. B. C. D. E. F.

Observations concerning wills and testaments.

THE party who signs, and seals a will, is to do it in the presence of three witnesses, who are to set their hands to it (not under three) and it is not much matter whether the witnesses hear the will read or no, so as they hear the party say he acknowledgeth that writing to be his will, to which he set his hand and seal; for if they did hear it read, it cannot be supposed that they can remember the contents thereof. A man above fourteen years of age may make a will of his goods, and a woman above twelve, but neither can will their lands until twenty one years.

If a man dies without a will, and leaves both free-lands and goods, his wife will have the third part of the profits of the land, during her life, and the third part of the goods for ever; and the next of kin to the husband the other two third parts. But he that makes a will, and leaves his wife a certain sum to be paid her yearly, during her life, by his executor, should also give her some of his moveable goods.

If a man dies without a will signed, and sealed, leaving many children, the eldest son claims all the land; but, if he leaves daughters only, they will be co-heirs to all free-land.

Copy hold land is not given by will, but passed by surrender in court.

To will land to E. F. for ever; or to G. H. and his assigns this is but for life; but I give and demise unto E. F. his heirs and assigns for ever, so G. H. may sell it.

The word executor, is the name given to him that is to see the will performed; but if it be a woman, she is called in the will executrix.

Set your house in order while you are in health.

For a (will) testament is of force after men are dead, Heb. ix. 17. but not before.

For if a man hath sealed his will and delivered it to a friend to keep, he may make another, which makes the other will void.

THE FORM of a LETTER of ATTORNEY, to execute a particular business.

K NOW all men by these presents, that I, A B, of G, in the county of D, yeoman, for divers good causes and considerations, me hereunto moving, have made, ordained, constituted, and appointed, and by these presents, do make, ordain, constitute, and appoint my trusty friend I K, of M, gent. my true and lawful attorney, for me, in my name, and to my use, to ask demand, recover and receive of, and from B C, of, &c. the sum of, &c. giving, and by these presents, granting to my said attorney, my sole and full power, and authority, to take, pursue, and follow such legal courses for the recovery, receiving, and obtaining of the same, as I myself might or could do, were I personally present; and upon the receipt of the same, acquittances, or other sufficient discharges for me, and in my name, to make, sign, seal and deliver; as also one or more attorney or attorneys under him to substitute and appoint, and again at his pleasure to revoke; and farther to do, perform and finish for me, and in my name, all and singular thing or things, which shall or may be necessary, touching and concerning the premises, as fully, thoroughly, and entirely, as I the said A B, in my own person might, or could do, in or about the same; ratifying, allowing, and confirming whatsoever my said attorney shall lawfully do, or cause, to be done, in and

about the execution of the premises, by virtue of these presents. In witness whereof, I have hereunto set my hand and seal, the 12th day of September, in the 30th year of the reign of our sovereign lord George II. by the grace of God, king of Great Britain, &c. and in the year of our Lord 1759.

Revocation of a Letter of Attorney.

K NOW all men by these presents, that whereas I _____ of _____ in the county of _____, yeoman, upon the trust and confidence which I had in _____ of _____, gent. by letter of attorney under my hand and seal, bearing date _____, did make, ordain, constitute and appoint the said _____ my lawful attorney, for me, and in my name, and to my use, to ask, demand, recover and receive, of and from _____ of _____, bookseller, the sum of _____, as thereby more at large may appear: now know ye, that I the said _____, for divers good causes and considerations me hereunto moving, have and by these presents do revoke, disannul and make void the said letter of attorney, and all power and authority, therein to him the said _____ given. In witness, &c.

Indenture for an Apprentice.

T HIS indenture witnesseth, that _____ son of _____, &c. doth put himself apprentice to _____, shoemaker, to learn his art or mystery, and with him after the manner of an apprentice to serve from the day of the date hereof for and during the term of seven years next ensuing; during all which term, the said apprentice, his said master faithfully shall serve, his secrets keep, and all his lawful commands every where gladly do; he shall do no damage to his master, nor see it to be done by others, without letting or giving notice thereof to his said master: he shall not waste his master's goods, nor lend them unlawfully to any. He shall not commit fornication, nor contract matrimony during the said term; he shall not play at cards, dice, or any other unlawful game, whereby his master may be damaged, with

his own goods, nor the goods of others; he shall not absent himself day or night from his said master's service unlawfully; nor haunt ale-houses, taverns, or play-houses; but in all things behave himself as a faithful apprentice, in the trade or mystery he now followeth; and the said master shall procure and provide for him sufficient meat, drink, apparel, lodging, washing and all other necessaries during the said term. And for the true performance of all and every the said covenants and agreements either of the said parties bindeth himself unto the other firmly by these presents. In witness whereof, they have interchangeably set their hands and seals hereunto, this twentieth day of September. In the 32th year of the reign of our sovereign lord George II. king of Great Britain, France and Ireland, &c. and in the year of our Lord, 1759.

Letter of Attorney from a Seaman.

K NOW all men by these presents, That I, _____, mariner, now belonging to his majesty's ship the Ann, for divers good causes and considerations me hereunto moving, have, and by these presents do make, ordain, constitute and appoint my trusty friend _____, citizen and baker of Bristol, my true and lawful attorney for me, and in my name, and for my use, to ask, demand, and receive of and from the right honourable the treasurer, or pay-master of his majesty's navy, and commissioners for prize-money, and whom else it may concern; as well all such wages, and pay, bounty-money, prize-money, and all other sum and sums of money whatsoever, as now are, and which hereafter shall or may be due or payable unto me; also all such pensions, salaries, smart-money, and all other monies and things whatsoever, which now, or at any time hereafter is, or shall be due to me for my service, or otherways in any of his majesty's ship or ships, frigates or vessels: giving and hereby granting unto my said attorney full and whole power to take, pursue, and follow such legal ways and courses for the recovery, obtaining and discharging the said sum and sums of money, or any of them, as I myself might, or could do, were I personally present. And I do hereby ratify, allow, and confirm all and whatsoe-

er my said attorney shall lawfully do, or cause to be done, in and about the execution of the premises, by virtue of these presents. In witness, &c.

A B O N D.

KNOW all men by these presents, That I (Robert Scott, in the county of Durham, merchant) am held, and firmly bound unto (Jams Syms of Doncaster, in the county of York, Esq;) in the sum of (Two hundred) pounds of good and lawful money of Great Britain, to be paid to the said (James Syms) his heirs, executors, administrators, or assigns: to which payment, well and truly to be made, I bind myself, my heirs, executors, administrators, or assigns, firmly by these presents. Sealed with my seal. Dated the (first day of June) in the 32d year of the reign of our sovereign lord (George the second) by the grace of God, king of Great Britain, France and Ireland, defender of the faith, and in the year of our Lord God (One thousand seven hundred and fifty nine.)

The C O N D I T I O N.

THE condition of this obligation is such, that if the above bounden (Robert Scot) his heirs, executors or administrators, do well and truly pay, or cause to be paid, unto the above mentioned (James Syms) his executors, administrators, or assigns, the full sum of (one hundred pounds) with lawful interest for the same, of good and lawful money of Great Britain, on the (first day of January next) ensuing the date hereof; then this obligation to be void, or else to remain in full force.

Sealed and delivered (being
first legally stamped) in
presence of

Robert Scott.

F. G.

H. I.

☞ When a bond is given in consideration of the value received, the bond is always to be made for double the value in the condition.

What is to be varied, and made agreeable to the circumstances before you, is in those words inserted between ().

A Condition to stand to the Award of Arbitrators.

THE condition of this obligation is such, That if the above bounden (James Sly of Newcastle, merchant) his heirs, executors and administrators, and every of them, do and shall in all things, well and truly stand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrament, final end and determination of (Andrew Mills and James Mills, of Bristol, merchants) arbitrators indifferently named, elected, and chosen, as well on the part and behalf of the above bounden (James Sly) as of the above named (James Syms) to arbitrate, award, order, judge, and determine of and concerning all manner of actions, causes, and causes of actions, suits, bills, bonds, specialities, judgments, executions, extents, accompts, debts, dues, sum and sums of money, controversies, trespasses, damages, and demands, whatsoever, at any time or times heretofore had, made, moved, brought, commenced, sued, prosecuted, done, suffered, committed, or depending by or between the said parties, so as the award be made, and given up in writing, under their hands and seals ready to be delivered to the said parties on or before the () next ensuing the date above mentioned :) but if the said arbitrators do not make such an award, of and concerning the premises, by the time aforesaid ; that then if the said (James Sly) his heirs, executors, and administrators, for his and their parts and behalf, do in all things well and truly stand to, obey, abide, perform, fulfil, and keep the award, order, arbitrament, umpirage, final end and determination of (John Jack, of Lincoln Esq;) umpire indifferently chosen between the two parties, to end the said matter and differences, so as the said umpire do make his award and umpirage of, and concerning the premises, and deliver the same in writing under his hand and seal, to the said parties, on or before the (day of) next ensuing the date above said, then this obligation to be void, or else to remain in full force.

Scaled and delivered (being legally stamped) in presence of, &c.

James Sly, (L. S.)

Note, Both the parties are in this case to be mutually bound, *mutatis, mutandis*; and if there be no umpire admitted of, the latter part of the condition, beginning [But if the said arbitrators] is to be omitted.

The Form of an Umpirage of Award.

TO all people, to whom this present writing shall come; I (John Jack of Lincoln, Esq;) umpire, indifferently chosen between (James Slight, and John Fox of London, merchants) send greeting; Now know ye, that I the said (John Jack) having deliberately heard, considered, and understood the griefs, allegations, and proofs of both the said parties, and being willing, as much as in me lieth, to set the said parties at unity and good accord, do by these presents, arbitrate, award, order, deem, decree and judge, that the said (James Slight) his executors, administrators, or assigns, do, and shall well and truly pay, or cause to be paid unto the said (John Fox) his executors, administrators, or assigns, the sum of () of lawful money of Great Britain, on the () day of () next ensuing the date of these presents; and that upon payment thereof, the said (James Slight and John Fox,) shall, at their own proper costs and charges, seal, subscribe, and as their several acts and deeds, deliver each to the other, a general release in writing, of all matters, actions, suits, causes of actions, bonds, bills, covenants, controversies, and demands whatsoever, from the beginning of the world to the (sixteenth day of July last past) and in the (32) year of our sovereign lord (George II.) king of Great Britain, &c. In witness whereof I have hereunto set my hand and seal, the (25th day of June 1759).

Sealed and delivered (being duly stamped) in
presence of, &c.

John Jack. [L. S.]

A Letter of Licence to a Debtor.

TO all people, to whom this present writing shall come; we whose names are here under subscribed, and seals affixed, creditors of [D. F. of Bristol, mer-

chant] send greeting. Whereas the said [D. F.] on the day of the date of these presents, is indebted unto us severally, in divers considerable sums of money, which at present he is not able to satisfy unto us, without respite, and time to be given unto him for the payment thereof; Know ye therefore, That we the said creditors, for divers good causes and considerations, us thereunto moving, have given and granted, and by these presents, do give and grant unto the said [D. F.] our sure and safe conduct and free licence, that the said [D. F.] shall, and may safely come and go, and resort unto us, and every one of us, his said creditors, to compound and take order with us, and every one of us for all and every of our said debts, and to go about any other business to any other person or persons whatsoever, without any trouble, suit, arrest, attachment, or other molestation to be offered or done to him, the said [D. F.] his wares, goods, monies, or other merchandizes whatsoever, by us, or any of us, or by the heirs, executors, administrators, partners, or assigns of us, or any of us, or by our, or any of our means or procurement, to be sought or procured to be done, from the day of the date hereof, unto the full end and term of [one whole year] next ensuing. And we the said creditors, whose names are here underwritten, do hereby covenant and grant, and every one of us for his own part, his executors and administrators covenanteth and granteth, to and with the said [D. F.] that if any trouble, wrong, damage, or injury shall be done unto him the said [D. F.] either in his body, goods, or chattles, or any of them, within the said term of [one year] next coming after the date hereof, by us, or any of us, his said creditors, or by any other person or persons, by or through the procurement, consent, or knowledge of us, or any of us, contrary to the true intent and meaning of this our present writing of safe conduct, that then the said [D. F.] by virtue of these presents, shall be discharged and acquitted for ever, towards and against him and them, of us, his and our heirs, executors, administrators, partners, or assigns, and every one of them, by whom, and by whose means he shall be arrested, troubled and attached, or damnified, of all manner of actions, suits, quarrels, debts, and de-

mands, either in law or in equity, from the beginning of the world, to the day of the date hereof; in witness whereof, we have hereunto set our hands and seals the [fourth day of July] Anno Domini 1759.

Sealed and delivered (being first duly stamped)
in presence of, &c.

A. B. [L. S.]

C. D. [L. S.]

E. F. [L. S.]

A BILL of SALE.

K NOW all persons whom it may concern, That I [John Trader of Kendal, in the county of Westmoreland, weaver] for and in consideration of the sum of [one hundred pounds] of lawful money of Great Britain, to me in hand paid, by [Daniel Dike, of London, Esq;] the receipt whereof I do hereby acknowledge, have bargained, sold, and delivered, and by these presents, according to the due form of law, do bargain, sell, and deliver unto the said [Daniel Dike] forty pieces of Kendal cotton, one hundred pairs mens hose, fifty womens do, fifteen boys do, sealed up with my seal. To have and to hold the said bargained premises, unto the said [Daniel Dike] his executors, administrators, and assigns for ever. And I the said [John Trader] for myself, my executors and administrators the said bargained premises unto the said [Daniel Dike] his executors, administrators and assigns, against all persons, shall and will warrant, and for ever defend, by these premises: [If the bargained premises be redeemable, by a limited time, a proviso of this nature is added.] Provided nevertheless, that if I the said [John Trader] my executors, administrators and assigns, or any of us, do and shall well and truly pay, or cause to be paid unto the said [Daniel Dike] his executors, administrators, or assigns, the sum of [one hundred and three pounds] as principal and interest, lawful money of Great Britain, on the [thirtieth of October, next ensuing the date hereof] for redemption of the bargained premises; then this present bill of sale shall be void, and of none effect: but if default be made in the payment of the said [one hundred and three pounds] in part or in the whole, contrary to the manner and form aforesaid, that then it shall remain and be in full force and

virtue: in witness whereof, I have hereunto set my hand and seal, the [twenty sixth day of June] in the year of our Lord [1759.]

Sealed and deliverd, &c.

John Trader. [L. S.]

A general Release.

K NOW all men by these presents, That I, [Thomas Stivens of London, grocer] have remitted, released, and for ever quitted claim, and by these presents, do for me, my heirs, executors and administrators, remise, release, and for ever quit claim, unto [Jeremiah Bucks, citizen and mercer of London] his heirs, executors and administrators, all and all manner of actions, causes and causes of actions, suits, bills, bonds, writings obligatory, debts, dues, duties, accompts, sum and sums of money, judgments, executions, extents, quarrels, controversies, trespasses, damages and demands whatsoever, both in law and equity, or otherways howsoever, which against the said [Jeremiah Bucks] I ever had, now have, and which I, my heirs, executors and administrators, shall or may have, claim, challenge or demand, for or by reason or means of any matter, cause or thing; from the beginning of the world, to the day of the date of these presents: in witness whereof, I have hereunto set my hand and seal, the [twelfth day of July] and in the year of our Lord [1759.]

Signed, sealed and delivered [be-

ing first legally stamped] &c. Tho. Stivens. [L. S.]

Of Wives, Children and Servants.

THE woman, at her marriage, becomes wholly the man's, together with all her moveable goods, and if goods be given to a married woman, they immediately become her husband's: she cannot let, sett, sell, give away, or alienate any thing without her husband's consent, not her very apparel, which at her husband's decease goes to the executor, or administrator of her husband (excepting her necessary apparel) which, with the consent of her husband, she may give by will, not otherways by our English laws.

The wife, after her husband's death, having no jointure settled before marriage, may challenge the third part of his yearly rents of free-lands, for her life; and also the thirds of the rents of such free-lands as he sold in his life time, if she did not consent to a fine; but she can claim no thirds of such lands as her husband buys when he has sold them again, and dieth, if he puts another person's name in the deed besides himself, when he bought them. But if her husband dieth without a will in writing, leaving no child, she will claim the thirds, as above, and a third part of the goods for ever, and the other two thirds go to the next of his kindred.

But if she be the wife of a freeman of the city of London (he dying without a will, leaving no child, as before) she will challenge by law, three parts of four of her husband's goods and chattles, and one third of the profits of his free-lands for life, the goods for ever. By a late act of parliament persons since made free are not bound by this law.

The husband must answer to his wife's faults; if she wrong another by her tongue, or by trespass, he must make satisfaction; and pay the debts that she causeth, except he did before give notice; that they should not trespas her. This is disputable.

A woman cannot hope to have the thirds of her husband's land, which he mortgaged before marriage, till the money's paid, and the mortgage be cancelled.

A man and wife are joint purchasers of land, to them and their heirs and the survivors, and heirs; and if the husband dies, the wife may sell the land without the consent of their children.

A woman that kills her husband is to be burnt alive.

If a wife brings forth a child, begotten by another before marriage, but born after marriage, the husband must own the child as heir at law.

A wife cannot be a witness for, or against her husband, they two being but one in law.

If a wife brings forth a child during her husband's long absence, though it be some years, yet if he lived all the time within this island, he must father that child; and if that child be her first-born son, he shall inherit the

husband's estate, if intailed, or left without a will. This has been lately tried, and decided otherwise.

A woman that doth not hear of her husband for seven years together, may marry another man.

If a woman have no sons, but daughters, the lands, as well as goods, are equally divided among the daughters, who are co-heirs.

Man and wife are so fast joined by our law, that they may not be wholly parted by our law, by any agreement between themselves; but only by the sentence of a proper judge, for adultery, &c.

Of Children, Sons and Daughters.

A Father may give all his estate (not intailed) to any one child, the consideration of which keeps some children in awe.

A son at the age of 14, may chuse his guardian, be an executor, may consent to marriage (if not an apprentice) may, by will, give his goods and chattles, and become bound in bonds, or covenants for necessities, food, raiment, schooling, &c.

At the age of 15, he may be sworn to his allegiance to the king.

At 21, he is said to be of full age, may sell land, (which in other countries is not till 25) when the heat of youth is somewhat abated, and they begin to be stayed in mind, as well as in growth.

A daughter at seven years may consent to marry, tho' she may afterwards dissent; at nine she may consent to a jointure.

At 12 she is able to confirm her former consent to marriage, and if at that age she dissent not, she is bound: she may at that age make a will of her goods, and become bound for necessities, &c.

At 13 she may receive her lands into her own hands, that are given, or fall to her. At 21 she may lett, sell, or will her lands.

The eldest son inherits all his father's lands (if the father died without a will) and to the younger children are disposed goods and chattles, and commonly the eldest son's wife's portion.

If a man marry a wife having free land, and she dieth, leaving a child that is heard to cry, though it dieth presently, the man shall have the lands for his life. This is called, The courtesy of England.

Of servants.

ORdinary servants are hired, commonly for a year (whereby they become inhabitants of that parish) at the end thereof, they may be free (giving 3 months warning before) and may place themselves with other masters; only it is accounted discourteous and unfriendly, to take another man's servant, before leave given by his master; and indiscreet to hire a servant without a certificate of his diligence, and faithfulness, in the service of his last master, or some what to this effect.

Memorandum, That I, G. D. do certify, that J. B. the bearer hereof, hath been an honest and faithful servant unto me Witness my hand, the 4th of May, 1759.



FORMS of Receipts, Notes and Bills, &c. necessary to be understood in order to forming the man of business.

Various Forms of acquittances, when an apprentice, or servant receives money for the use of his master, or employer, &c.

REceived the 27th of July, 1759. of Mr. Thomas Adams, Nine pounds twelve shillings, for my master David Stone, on account,

Per James Thompson.

L. 9 12 —

Received the 6th of September, 1759. of Henry Holland, Fifty eight pounds ten shillings and four pence, in full payment for my master Andrew Jones,

Per Matthew Burns.

L. 58 10 04

Received the 24th of August, 1759. of Mr. James Johnson and company, Two hundred pounds, for Mr. Thomas Murphy and partners,

Per Richard Williams.

L. 200 — —

Received the 20th of February, 1759. of the honourable the United East India company, Four thousand pounds sixteen shillings and sixpence, for Mr. English and company,

Per Peter Morgan.

L. 4000 16 06

Received the 26th of April, 1759. of the governor and company of the bank of England, Ten thousand fifty pounds eighteen shillings, for Michael Caxton and company,

Per Edward Carter.

L. 10,050 18 —

Received the 26th of March, 1759. of the worshipful company of mercers, Eighty six pounds for my father Christopher Yates,

Per Edward Yates.

L. 86 — —

Received the 13th of March, 1759. of Mr. Richard Foxcraft, Fifteen Pounds, for a quarter's rent due at Christmas last, for my master George Gibbons,

Per Isaac Jobson.

L. 15 — —

Received the 18th of June, 1759. of Mr. Lewis Armstrong, Thirty five pounds eight shillings, in part of a bill of One hundred pounds, payable to Mr. Simon Pure or order, due the 10th instant,

Per George Norton.

L. 35 08 —

Received the 29th of February, 1759. of Mr. Thomas Laurence, by order of Mr. John Kent, the sum of One hundred and fifty pounds six shillings and ten pence, on account of Mr. Nathaniel Combs, of Appleby: I say received for my master John Pyc and partner,

Per Isaac Taylor.

L. 150 06 10

Various Forms of Acquittances, upon receipt of money, by masters and men of business themselves.

Recieved this 16th of June, 1759. of Messrs. John and James Simpson, Six hundred and forty pounds on account,

Per William Burnet.

L. 640 — —

Received the 9th of July, 1759. of the right honourable William Parrot, Esq; the sum of Three hundred and fifty pounds, in full of all demands for self and company,

Per George Dawson.

L. 350 — —

Received the 17th of August, 1759. of Mr. James Sims, Thirty pounds, in full for interest of twelve hundred pounds due at Midsummer last,

Per Thomas Lowther.

L. 30 — —

Received the 19th of September, 1759. by the order, and for the use of Mr. Benjamin Blundell, of Mr. Stephen Carr, Ten pounds ten shillings, and allowed for taxes and repairs, one pound ten, together, the sum of twelve pounds, in full for a quarter's rent, due at Midsummer last.

Per Joseph Rentroll.

L. 12 —

Received the 16th of May, 1759. of the executors of James late earl of Bath, by the hands of Mr. John Thompson, the sum of Sixty five pounds twelve shillings, in full for my half year's annuity due at Lady-day last,

Per Charles Steward.

L. 65 — —

Received the 1st of May, 1759. of Robert Pringle, Esq; and the other owners of the ship the Berwick, the sum of One hundred and eight pounds ten shillings, in full for cordage, tackle, and trimming, furnished the said ship,

Per Andrew Shipwright.

L. 108 10 —

Promissory Notes by banker's apprentices and servants.

Bristol, March 7th, 1759.

I Promise to pay the honourable Charles Snell, Esq; or bearer, on demand, Fifty pounds,

For Sir Richard Jones and partners,

Per Anthony Timons.

L. 50 — —

London, November 20th, 1759.

I promise to pay the royal African company, or bearer, on demand, Four thousand six hundred and sixty four pounds thirteen shillings and six pence, for my masters George and James,

Per Adam Eve.

L. 4664 13 06

Promissory Notes for a man's self, &c.

I Promise to pay to Nathaniel Smith, or bearer, on demand, Nine hundred pounds, May 20th, 1759.

Per Thomas Hunt.

L. 900 —

I promise to pay to the governor and company of the bank of England, Ten thousand pounds, value received this 6th of May, 1759. for myself and partners,

Per Israel Jack.

L. 10,000 —

London, August 2d, 1759.

I promise to pay Mr. Michael Pope, cashier of his majesty's revenue of excise, or order, forty days after date, Five hundred and thirty pounds, value received,

Per Andrew Cash.

L. 530 —

I promise to pay to Peter Paul, Esq; or order, on demand, Four hundred and ninety pounds, value received this 9th of March, 1759.

Per Peter Vernon.

L. 490 —

I promise to pay to Francis Dove, Esq; or order, the sum of sixty pounds, on demand, after a receipt of a bill of exchange drawn the 9th current, by Humphry Trade, on Henry Henly of Northampton, mercer, for the like

sum payable to William Pack, Esq; or order, which the said Francis Dove has indorsed to to me, this 24th of December, 1759.

Per James George.

L. 60 — —

A Bill of Debt.

K NOW all men by these presents, That I Michael Pool, of the county of Durham, gent. do own and acknowledge myself justly to stand indebted to Alexander Anderson of the county of York, haberdasher, the just sum of twenty four pounds, of good and lawful money of Great Britain, and which I do hereby promise to pay unto him the said Alexander Anderson, on the 26th day of August, next ensuing the date hereof. Witness my hand this 12th day of March, in the year of our Lord 1759.

Michael Pool.

Another.

Memorandum, That I Thomas Bell, of the parish of St. Ambrose, salter, do owe and am indebted to James Purves of the said place, mercer, the sum of Sixty pounds of good and lawful Money of Great Britain, which sum I promise to pay to the said James Purves, his executors, administrators, or assigns, on, or before the 12th day of October next. In witness whereof I have hereunto set my hand and seal, the 27th day of May, in the year of our Lord, 1759.

Thomas Bell. [L. S.]

Signed, sealed, and delivered,
(being first legally stamped)
in presence of John Thompson.

Michael Wentworth.

A promissory note, mentioning order, is indorseable from one person to another, which is done by the present possessor's writing his name on the back of it, and delivering it up to the party, to whom he intends to assign over his property therein.

The delivering up a promissory note to the person who signed it, is a sufficient voucher of its being paid, nor is there need of writing a receipt thereon.

Promissory notes, and book debts, if not legally demanded in the space of six years, cannot be recovered by law upon the debtor's pleading the statute, but they are recoverable in chancery.

If you keep a promissory note on demand, in your own hands above three days, and the person it is upon should fail, the loss will be your own; but if he fail within three days, it will light in equity on the person that paid it you.

Promissory Notes.

Borrowed and received of John Derby, Esq; Seventy pounds, which I promise to pay to him, or order, on demand. Witness my hand this 29th of September, 1759.

Per Joseph Jones.

L 70 0 0

Borrowed and received of Mr. Timothy Trusty, Thirty pounds, which I promise to pay to him, or order, three months after date. Witness my hand this 14th of August 1759.

Per Roger Dodds.

L. 30 0 0

I promise to pay to James Forrester, Esq; or order, Two hundred pounds eighteen shillings, on demand, value received. Witness my hand this 17th day of July, 1759.

Per Roger Cook.

L. 200 18 0

N. B. Observe in promissory Notes, that the value received is mentioned; or they are of no force.



ARITHMETIC.

AFTER you are compleat in writing, you must next proceed to arithmetic, the knowledge of which is so necessary, that scarce any thing in life, and nothing in trade can be done without it.

And first of notation and numeration.

In notation we must observe that all numbers may be, and now generally are expressed by, or composed of the ten figures or characters following, *viz.*

One, two, three, four, five, six, seven, eight, nine, cypher.

1 2 3 4 5 6 7 8 9 0

Nine of these are called significant figures, to distinguish them from the cypher, which of itself signifies nothing; but as it is placed (in whole numbers) serves to increase the value of the next figure or figures that stand before it; as 3 is but three; but before the cypher thus, 30, the three becomes thirty, &c. — We are to note, that every one, or any of the above nine figures or digits have two values, one certain, and another uncertain: the certain value is, when it stands alone by itself: the uncertain is, when joined or placed with other figures or cyphers: for when any one of these figures stands alone, it signifies no more than its own simple value: as 5 is but five, 4 but four, 6 is but six, and 3 no more than three, &c. And this is the certain value of a figure: but when another figure or cypher is annexed, then they are increased in their value ten times: as 5, or 5 unites, or ones, to five tens, or fifty, 4 to 4 tens or forty, 6 to 6 tens, or sixty, and 3 to 3 tens, or thirty, as thus, 51, fifty-one: 42, forty-two: 63, sixty-three: 34, thirty-four, &c. Again, if any of the said figures stand in the third place towards the left-hand,

they then signify so many hundreds as singly they express unites or ones, as 500 is five hundreds, 400 four hundreds, 600 six hundreds, and 300 three hundreds, &c. If any of them possess the fourth place towards the left-hand, they are so many thousands as they contain unites : and so any, or every figure increases by a tenfold proportion, from the right-hand to the left, according to the place it is found or stands in ; so that 5 may be but five, or fifty ; five hundred, or five thousand ; in the first place, 5 ; in the second, 50 ; in the third, 500 ; and in the fourth place, 5000, &c.

The Numeration Table.

Hundreds of thousands of millions	Tens of thousands of millions	Thousands of millions	Hundreds of millions	Tens of millions	Millions	Hundreds of thousands	Tens of thousands	Thousands	Hundreds	Tens	Unites	Thousands of millions	Millions	Thousands	Units, or ones
12	11	10	9	8	7	6	5	4	3	2	1	123	456	789	012
1	2	3	4	5	6	7	8	9	0	1	2	12	345	678	901
	1	2	3	4	5	6	7	8	9	0	1	1	234	567	890
		1	2	3	4	5	6	7	8	9	0		123	456	789
			1	2	3	4	5	6	7	8	9		12	345	678
				1	2	3	4	5	6	7	8		1	234	567
					1	2	3	4	5	6	7			123	456
						1	2	3	4	5	6			12	345
							1	2	3	4	5			1	234
								1	2	3	4				123
									1	2	3				12
										1	2				1

For the easier reading of any number, first get the words at the head of the table by heart; as units, tens, hundreds, thousands, &c. and applied thus, 75, five units, five, and 7 tens, seventy, that is, seventy five. Again, 678; 8 units, eight, 7 tens, seventy; and 6 hundred, six hundreds; that is, six hundred seventy eight. Once more, 3456; 6 units, six; 5 tens, fifty; 4 hundreds, four hundred; 3 thousands, three thousands; together three thousand four hundred fifty six. Read the 4th line of the table downwards, viz. 123456789; here the valuation of the figures is from the right hand to the left, as 1 in the ninth place is hundreds of millions, but to be read from the left hand to the right; thus, one hundred twenty three millions, four hundred fifty six thousand, seven hundred eighty nine. But any number may yet be read more intelligibly, viz. by stops, thus; make a comma at every third figure or cypher, beginning at the right hand, and so on towards the left, making a stop after every third figure or cypher, as aforesaid, thereby distinguishing every third place into hundreds, as hundreds of units, hundreds of thousands, hundreds of millions, and hundred thousands of millions, &c. and for tryal let's read the first line of the table; the last place in valuation is hundred thousands of millions, and to be pointed into periods thus, 123,456,789,012; and read thus, one hundred twenty three thousand, four hundred fifty six millions, seven hundred eighty nine thousand and twelve; that is no hundreds, but twelve. Again read the following number, viz. 276,245,678,921,460; here the first point or period is betwixt 4 and 1, and the last between 2 and 6, and to be read thus; 276 millions of millions, 245 thousands of millions, 678 millions, 921 thousands, 460 units or ones. And thus may any number be read with ease, though a large one; and thus are large numbers or sums expressed, or set out in the exchequer, bank and lottery tickets, &c. as thus, No. 225,156—19,478—and 42,000, &c. the foregoing table of numeration is on the right hand distanced out into periods, for the easier reading thereof.

Numbers to be read and written.

96, Ninty six
 242, Two hundred forty two
 7924, Seven thousand nine hundred 24
 54006, Fifty four thousand and six
 524707, Five hundred twenty four thousand 707
 4606240, Four millions 606 thousand 240
 62700472, Sixty two millions 700 thousand 472
 474960204, Four hun. 74 millions 960 thous. 204
 4214007042, Four thous. 214 millions 7 thous. 42
 470706420042, Four hundred and 70 thousand, 706
 millions 420 thousand and 42

Of numerical letters.

Sometimes numbers are expressed by letters; especially in the bible, to signify the chapter or psalm; at the bottom of title pages of books for the date of the year, and frequently in inscriptions on funeral monuments, &c. for which reason 'tis necessary to know how to read them. Therefore observe, that I. stands for 1, or one unit, II. for 2. III. for 3. IV. for 4. V. for 5. VI for 6. VII. for 7. VIII. for 8. IX. for 9. X. for 10. XI for 11. XII. for 12. XIII. for 13. XIV. for 14. XV. for 15. XVI. for 16. XVII. for 17. XVIII. for 18. XIX. for 19. XX. for 20. XXI. for 21. &c. XXX. for 30. XXXI. for 31. &c. XL. for 40. XLV. for 45. &c. L. for 50. LI. for 51 &c. LX. for 60. LXI. for 61. &c. LXX. for 70. LXXI. for 71. &c. LXXX. for 80. LXXXI. for 81. &c. XC. for 90. XCI. for 91. &c. C. for 100. CC. for 200. CCC. for 300. CCCC. for 400. D. or ID. for 500. DC. for 600. &c. M. or DID. for 1000. &c. Thus the present year 1759. is wrote MDCCLIX.

ADDITION.

IS the putting together two or more numbers or sums in order to make them one total, or whole sum.

Here we must always observe to set the numbers to be added, orderly one under the other; that is, units under, units. tens under tens, hundreds under hundreds, &c. as in the subsequent examples.

Addition of numbers of one denomination.

Yards

Gallons

Pounds

Tens Units	Hund. Tens Units	X of Th. Thous. Hund. Tens Units
2 4	7 5 6	5 7 7 6 2
4 6	5 3 2	3 9 9 4 4
6 8	4 7 8	6 7 2 2 2
8 2	6 9 6	7 9 6 7 4
2 4	4 2 2	0 2 4 6 2
4 2	6 7 8	0 0 3 9 0
2 8 6	3 5 6 2	2 4 7 4 8 4

In addition of simple numbers, whether it be yards, gallons, pounds, or any thing else, remember to carry 1 for every 10 you find in the row or rank of figures being units to the next row of tens; and the like from the rank of tens to the row of hundreds, &c. and whatever it makes in the last, you must set it down, amount to what it will. Thus:

The numbers above are set down in order, as before directed; that is, units under units, tens under tens, &c. as may be plainly understood, by being indicated at the head of each row or rank with units, tens, hundreds, &c. Then in casting up each example, to know its total, I begin at the right hand, or units rank, of the first example, and say 2 and 4 is 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26; in which row there are two tens and 6 over; wherefore I set down 6 just under its own rank, and carry 2 to the next or last row, and say, 2 that I carried and 4 makes 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26, and 2 is 28; and it being the last row, I set down the amount, viz. 28; so that the total number of yards is found to be (by the method) at the bottom 286. And the next, or second example, is found by the same method to be 3562 gallons. And in the third and last example, the total number of pounds is found to be 247484. and so the total of any other example of the same kind, viz. simple numbers of one denomination, may be found. Note, that when any of the ranks amount to just 10, 20, 30, 40, 50, &c. then

you must set down the 0, under its proper rank, and carry either 1, 2, 3, 4, or 5, according to the number of tens that you find, to the next row; and so you must always do, when it so happens, whether in the first, second or third row, or in any other except the last, where what it amounts to must be set down without any reserve or carriage in the mind, because there is no other row or rank to carry to, as was hinted before.

Addition of Mixed Numbers.

Observe, 4 farthings make 1 penny, 12 pence make 1 shilling, 20 shillings make 1 pound sterling.

Libra in Latin signifying a pound, *l.* therefore stands for pounds.

Solidus in Latin signifying a shilling, *s.* therefore stands for shillings.

Denarius in Latin signifying a penny, *d.* therefore stands for pence.

Quadrans in Latin, signifying a farthing, *q.* therefore stands for farthings.

Observe, that pounds be set directly under pounds, shillings under shillings, pence under pence, and farthings under farthings.

But before you proceed, get this table of pence by heart thus, 30*d.* is half-a-crown, then 60*d.* is 5*s.* again 40*d.* is 3*s.* 4*d.* then 80*d.* is 6*s.* 8*d.* again 50*d.* is 4*s.* 2*d.* then 100*d.* is 8*s.* 4*d.* &c. 100*lb.* of cheese at 3*d.* the *lb.* comes to three times 8*s.* 4*d.* or 100 faggots, 120 to the hundred, at 1*d.* a-piece, comes to 10*s.* in the table.

<i>d.</i>		<i>s.</i>	<i>d.</i>		<i>s.</i>		<i>l.</i>	<i>s.</i>
20	} is	1	8	} is	30	}	1	10
30		2	6		40		2	00
40		3	4		50		2	10
50		4	2		60		3	00
60		5	0		70		3	10
70		5	10		80		4	00
80		6	8		90		4	10
90		7	6		100		5	00
100		8	4		110		5	10
110		9	2		120		6	00
120		10	0		130		6	10

Then for every crown that a hundred of faggots cost, reckon an half-penny; if the faggot costs me three half-pence, one hundred will cost 15s. because there is three crowns in it.

Note, That young men may improve themselves very much in reckoning up divers things, after they have by heart the table aforesaid, and learning this rule of addition.

An hundred yards of tape at one penny the yard, the table tells you comes to 8s. 4d.

An hundred yards of ferreting at one penny half-penny the yard.

In the table 100d. is	-	-	-	8s.	4d.
And half the sum is	-	-	-	4s.	2d.

Answer 12s. 6d.

If one pound of any thing costs 7d. halfpenny, what will 280 lb. weight cost after that rate; performed by addition thus,

	l.	s.	d.
200 sixpences make 100s. or	-	-	5
80 sixpences make	-	-	2
200 pence	-	-	16
80 pence is a noble, or	-	-	6
200 halfpence is 100 pence, or	-	-	8
80 halfpence make 10 groats, or	-	-	3

Price of the goods 8 15 0

Note, Now you have by heart the table of pence, you may cast up any sum of money without dotting, for when you know the number of pence, you may by this table, know how many shillings to carry to the shillings place, and for the number of shillings in the row of shillings you know that 70s. is 3l. 10s.

(10)	(20)	(12)	12 set over the pence, shews that
l.	s.	d.	for every 12 I find in the pence row,
17	16.	1	I am to carry 1 to the shillings; for
20	11.	7.	so many 20s. as I find in the shillings
23	18.	9.	row, 1 to the place of pounds as a-
73	17	10	foresaid.

136 4 3

But the easiest way of casting up this sum (for the young learner) is by using dots, thus :

Beginning at the pence; I say 10*d.* and 9*d.* is 19*d.* where against the 9 I set a dot for 12*d.* (or you may make your dots on waste paper) and what is more or above 12 I carry to the next figure, viz. 7, and it makes 14, where I set a dot also for 12, and carry the remaining 2 to the 1 on the top, which makes 3, which 3*d.* I set between the lines, as you see in the example.

Next, I look how many dots there are, and find 2, which I carry to the row of shillings, saying, 2 that I carry and 17 is 19, and 18 is 37, where against the 18 I set a dot for 20*s.* for 1*l.* and carry the odd 17*s.* upwards saying, 17*s.* I carry and 11 is 28, where I set a dot against the 11 for another 20*s.* and carry the remaining 8 to the 16 on the top, saying 8 I carry and 16 makes 24*s.* where I set down a dot for 20*s.* and set between the lines the remaining 4*s.* under the row of shillings.

Note, That you may sum up the shillings row without dotting, thus; saying, 2*s.* that I carry from the place of pence, and 7 is 9, and 8 is 17, and 1 is 18, and 6 is 24, and 10 is 34, and 10 is 44, and 10 is 54, and 10 is 64, that is 3*l.* 4*s.* then the 4*s.* being set between the lines, the 2*l.* is to be carried to the pounds.

Lastly, The 3 dots for the 3*l.* found in the place of shillings, I carry to the pounds, saying, 3 that I carry and 3 is 6, and 3 is 9, and 7 on the top makes 16, the remaining 6 I set between the lines, under the first row of the pounds, and I carry 1 to the last row, saying, 1 that I carry, and 7 is 8, and 2 is 10, and 2 is 12, and 1 is 13, which being set between the lines, the whole sum comes to 13*l.* 4*s.* 3*d.*

Note, That when you are to write a bill of several small parcels, begin it in order of pounds, shillings, and pence, 0 - 3 - 9, and when you are to set down 16*d.* set down 1*s.* 4*d.* or to set down 23*s.* you must set 1*l.* 3*s.* 0*d.*

If a man owes me the three following sums of money, what come they to in whole?

<i>l.</i>	<i>s.</i>	<i>d.</i>	
202	17	$7\frac{1}{2}$	Note, That the $7\frac{1}{2}l.$ is seven pence
703	1	9	halfpenny; and $1\frac{1}{2}l.$ is one penny
906	10	$1\frac{1}{2}$	farthing; and in the total sum be-
			tween the lines $5\frac{1}{2}d.$ is five pence three
			farthings.

1812 9 $5\frac{1}{2}$

To cast up the three sums I do thus, the $\frac{1}{4}$ which is the farthing, and the $\frac{1}{2}$ the halfpenny, make $\frac{3}{4}$, or three farthings, which is set between the lines; next $1d.$ and $9d.$ is $10d.$ and $7d.$ is $17d.$ where against the 7 is set a dot for $12d.$ and set the odd $5d.$ between the lines.

Next, 1 that I carry from the place of pence and $10s.$ is 11, and 1 is 12, and 17 is $29s.$ I set down the remaining $9s.$ between the lines, and the $20s.$ making 11 I carry to the place of pounds;

Saying, 1 that I carry and 6 is 7, and 3 is 10, and 2 is 12, where I set a dot for 10, and set the remaining 2 between the lines.

Next, I carry the dot for 10, as 1 to the middle row (being all cyphers) and proceed to the last row;

Saying, 9 and 7 is 16, and 2 at the top is 18, which I set between the lines, and the whole sum comes to 1812*l.* 9*s.* $5\frac{1}{2}d.$

Addition of Money.

Money owing and money received, as follows.

(1)				(2)					
Owing to	Mr—	l.	s.	d.	Received from	Mr—	l.	s.	d.
	Mr—	4	12	6		Mr—	46	10	9
	Mr—	7	06	9		Mr—	79	16	0
	Mr—	4	12	0		Mr—	42	18	3
	Mr—	6	17	7		Mr—	66	12	4
	Mr—	5	06	6		Mr—	90	16	0
	Mr—	4	12	3		Mr—	84	17	6
	Mr—	6	00	0		Mr—	24	12	0
Mr—	5	15	4	Mr—	60	10	0		
	45	02	11		496	12	10		

I begin and say, 4 and 3 is 7, and 6 is 13, and 7 is 20, and 9 is 29, and 6 makes 35*d.* now 30*d.* according to the table, is 2*s.* 6*d.* and 5*d.* makes 2*s.* 11*d.* I set down 11 exactly under the rank of pence, and say, 2*s.* that I carry (which I do to the rank of shillings) and 5 is 7, and 2 is 9 (for I only take the unit rank of shillings) and 6 is 15, and 7 makes 22, and 2 is 24, and 6 is 30, and 2 makes 32; and now being come to the top of the sum, and it making 32, I come down with the tens of shillings, saying, 32 and 10 is 42, and 10 is 52, and 10 is 62, and 10 is 72, and 10 makes 82*s.* and the table telling me that 80*s.* is 4*l.* I know therefore 82*s.* is 4*l.* 2*s.* wherefore I set down the remaining 2*s.* just under the row of shillings, and carry 4*l.* to the pounds, saying, 4 that I carry, and 5 is 9, and 6 is 15, and 4 is 19, and 5 is 24, and 6 is 30, and 4 is 34, and 7 is 41, and 4 is 45*l.* so that the total of these several sums of money due to those several persons, amounts to 45*l.* 2*s.* 11*d.* as in the example.

In the second example of money received, I begin at the right hand, and say, 6 and 4 is 10, and 3 is 13, and 9 makes 22, and 22*d.* being 1*s.* 10*d.* I set down 10, and carry 1*s.* to the shillings; saying, 1 that I carry and 2 is 3, and 7 is 10, and 6 is 16, and 2 is 18, and 8 is 26, and 6 makes 32; then I come down with the tens, saying, 32 and 10 makes 42, &c. and I find at the bottom it comes to 112*s.* which making 5*l.* 12*s.* I set down 12*s.* and carry 5*l.* to the pounds, saying, 5 that I carry and 4 is 9, &c. I find at the top it amounts to 36, wherefore I set down 6 exactly under its own rank, viz. the rank of units of pounds, and carry 3 for the tens that are in 30 (for at all times in the first denomination of addition, whether of money, weight, and measure; that is in the denomination of pounds, tens, or yards, you must cast them up as sums of one denomination; that is, for every ten carrying one to the next, &c.) saying, 3 that I carry, and 6 is 9, and 2 is 11, and 8 is 19, &c. and I find that at the top it comes to 49; wherefore I set down 49 before the 6, and the total amounts to 496*l.* 12*s.* 10*d.*

A Table of English Coins,

Of Gold.

		l.	s.	d.
A Jacobus,	} Value	0	-	5 - 0
A Carolus,		1	-	3 - 0
A Guinea,		1	-	1 - 0
A half Guinea,		0	-	10 - 6

Of Silver.

A Crown,	} Value	0	-	5 - 0
A half Crown,		0	-	2 - 6

The names of the rest speak their value, as a shilling, a sixpence, a groat, or 4d. a threepence, a twopence, a penny.

Of Copper.

A Halfpenny,

A Farthing.

Besides the above mentioned, we have still in use the names of some other pieces, which are now but imaginary, viz.

A Mark,	} Value	0	-	13 - 4
An Angel,		0	-	10 - 0
A Noble,		0	-	6 - 8

Of Troy weight.

The least fraction or denomination of weight used in England, is a grain of wheat gathered out of the middle of the ear, and well dried; from whence are produced those following tables of weight, called Troy weight.

32 Grains of wheat	} make	24 Artificial grains
24 Artificial grains		1 Penny weight
20 Penny weight		1 Ounce
12 Ounces		1 Pound troy weight

And therefore,

lb.	oz.	pw.	grains.
1	12	20	24
1	12	240	5760
	1	20	480
		1	24

Troy weight serveth to weigh bread, gold, silver and eleſtuaries. It regulateth and preſcribeth a form how to keep the money of England at a certain ſtandard. The goldſmiths have divided the ounce troy weight into other parts, which they generally call mark weight. The denominative parts thereof are as followeth, viz. a mark (being an ounce troy) is divided into 24 equal parts, called carects, and each carect into 4 grains; ſo that in a mark are 96 grains. By this weight they diſtinguiſh the different firmneſs of their gold; for if to 22 carects of gold be put 2 carects of alloy (which is of ſilver, copper, or other baſer metal, with which they uſe to mix their gold or ſilver to abate the fineneſs thereof) both making when mixed but an ounce or 24 carects, then this gold is ſaid to be 22 carects fine; for if it come to be refined, the 2 carects of alloy will fly away, and leave only 22 carects of pure gold: the like to be conſidered of a greater or leſſer quantity. And as the fineneſs of the gold is eſtimated by carects, ſo the fineneſs of ſilver is diſtinguiſhed by ounces; for if a pound of it be pure, and loſeth nothing in the refining, ſuch ſilver is ſaid to be 12 ounces fine; but if it loſeth any thing, it is ſaid to contain ſo much fineneſs as the loſs wanteth of 12 ounces; as if it loſt 1 ounce 14 penny weight, then it is ſaid to be 10 ounces 6 penny weight fine, and that which loſeth 2 ounces 4 penny weight 16 grains, is ſaid to be 9 ounces 15 penny weight 8 grains fine, &c. the like of a greater or leſs quantity.

Of apothecaries weight.

The apothecaries have their weights deduced from troy weight, a pound of troy being the greateſt integer; a table of whoſe diviſion and ſubdiviſion followeth, viz.

And therefore,

			lb.	oz.	sc.	dr.	gr.
12 Ounces	} make	1 Pound	1	12	8	3	20
8 Drams		1 Ounce					
3 Scruples		1 Dram	1	12	96	288	5760
20 Grains		1 Scruple		1	8	24	480
					1	3	60
						1	20

Thus much concerning troy weight, and its derivative weights, which, as was said before, serveth to weigh bread, gold, silver, and electuaries. Now, besides troy weight, there is another kind of weight used in England, commonly known by the name of avoirdupois weight (1 pound of which is equal to 14 ounces, 12 penny weight troy weight): and it serveth to weigh all kind of grocery wares, as also butter, cheese, flesh, wax, tallow, rosin, pitch, lead, and all such kind of garble; the table of which weight is as followeth.

4 Quarters of a dram	} make	1 Dram
16 Drams		1 Ounce
16 Ounces		1 Pound
28 Pounds		1 Quarter of a hundred
4 Quarters		1 Hund. wt. or 112 lb.
20 Hundred		1 Tun

Tun.	C.	qrs.	lib.	oz.	dr.	gr.
1	20	4	28	16	16	4
1	20	80	2240	25840	573440	2293760
	1	4	112	1792	28673	114688
		1	28	448	7168	28672
			1	16	256	1024
				1	16	64
					1	4

Wool is weighed with this weight, but only the divisions are not the same, a table whereof followeth.

A table of the denominative parts of wool weight.

7 Pounds	}	make	1 Clove
2 Cloves			1 Stone
2 Stones			1 Todd
6 Todd 1 stone			1 Wey
2 Weys			1 Sack
12 Sacks			1 Last

Last.	sack.	wey.	todd.	stone.	clove.	lb.
1	12	2	6 $\frac{1}{2}$	2	2	7
1	12	24	156	312	624	4368
	1	2	13	26	52	364
		1	6 $\frac{1}{2}$	13	26	182
			1	2	4	28
				1	2	14
					1	7

Note, that in some counties the wey is 256 lb. avoirdupois, as the Suffolk wey; but in Essex, there is 336 lb. in a wey.

The least denominative part of liquid measure is a pint, which was formerly taken from troy weight (1 pound of wheat, troy weight, making a pint of liquid measure); but in regard of the difference between the brewers and farmers of his majesty's excise, concerning the gauging of vessels, occasioned by the different opinions of artists concerning the solid inches in a gallon, it was lately decided by act of parliament; the statute now making 282 solid inches in a beer gallon, and 231 in a wine gallon; and consequently the pint beer measure to contain 35 $\frac{1}{4}$ solid inches, and the pint wine measure to contain 28 $\frac{7}{8}$ cubical or solid inches. From whence is drawn the following table.

A table of liquid measure.

35 $\frac{1}{2}$ Cubical inches	}	make	1 Pint beer measure
28 $\frac{1}{2}$ Cubical inches			1 Pint wine measure
2 Pints			1 Quart
2 Quarts			1 Pottle
2 Pottles			1 Gallon
8 Gallons			1 Firkin of ale, soap, or herring
9 Gallons			1 Firkin of beer
10 Gallons and a half			1 Firk. of salmon or eels
2 Firkins			1 Kilderkin
2 Kilderkins			1 Barrel
42 Gallons			1 Tierce of wine
63 Gallons			1 Hogshead
2 Hogsheads			1 Pipe or butt
2 Pipes or butts			1 Tun of wine

And therefore,

Tuns.	pipes.	hhd.	gall.	pints.
1	2	2	63	8
1	2	4	252	2016
	1	2	126	1008
		1	63	504
			1	8

The least denominative part of dry measure is also a pint, and this is likewise taken from troy weight: the table of whose division followeth.

The table of dry measure.

1 Pound troy	}	make	1 Pint
2 Pints			1 Quart
2 Quarts			1 Pottle
2 Pottles			1 Gallon
2 Gallons			1 Peck
4 Pecks			1 Bushel
4 Bushels			1 Comb
2 Combs			1 Quarter
4 Quarters			1 Chaldron
5 Quarters			1 Wey
2 Weys			1 Last

And therefore,

Last. wey. qrs. com. buf. pecks. gall. pints.

1—2—5—2—4—4—2—8

1—2—10—20—80—320—640—5120

1—5—10—40—160—320—2560

1—2—8—32—64—512

1—4—16—32—256

1—4—8—64

1—2—16

1—8

The least denominative of long measure is a barley-corn well-dried, and taken out of the middle of the ear; whose table of parts followeth.

3 Barley-corns	}	make	1 Inch
12 Inches			1 Foot
3 Feet			1 Yard
3 Feet 9 inches, or a yard and a quarter			1 Ell English
6 Feet			1 Fathom
5 Yards and a half			1 Pole, perch, or rood
40 Poles or perches			1 Furlong
8 Furlongs			1 English mile

And therefore,

Mile. furl. poles. yards. feet. inches. barley corns.

1—8—40—5 $\frac{1}{2}$ —3—12—3

1—8—320—1760—5280—63360—190080

1—40—220—660—7920—23760

1—5 $\frac{1}{2}$ —16 $\frac{1}{2}$ —198—594

1—3—36—108

1—12—36

1—3

And note, that the yard, as well as the ell is usually divided into 4 quarters, and each quarter into 4 nails.

Note also that a geometrical pace is 5 feet; and there are 1056 such paces in an English mile.

The parts of the superficial measures of land, are such as are mentioned in the following table, viz.

A table of land measure.

40 Square poles or perches	}	make	{	1 Rood or quarter of an acre
4 Roods				1 Acre.

By the foregoing table of long measure, you are informed what a pole, or, which is all one, a perch, is; and by this, that 40 square perches is a rood. Now, a square perch is a superficies very aptly resembled by a square trencher, every side thereof being a perch of 5½ yards in length, 40 of them is a rood, and 4 roods an acre; so that a superficies that is 40 perches long and 4 broad is an acre of land, the acre containing in all 160 square perches.

The least denominative part of time is 1 minute, the greatest integer being a year; from whence is produced this following table.

The table of time.

60 Minutes	}	make	{	1 Hour
24 Hours				1 Day natural
7 Days				1 Week
4 Weeks				1 Month
13 Months, 1 day, 6 hours				1 Year

But the year is usually divided into 12 unequal calendar months; whose names, and the number of days they contain follow, viz.

	Days.
January	31
February	28
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31
	365

So that the year containeth 365 days and 6 hours; but the 6 hours are not reckoned, but only every 4th year, and then there is a day added to the latter end of February, and then it containeth 29 days, and that year is called leap year, and containeth 366 days.

And here note, that as the hour is divided into 60 minutes, so each minute is subdivided into 60 seconds, and each second into 60 thirds, and each third into 60 fourths, &c.

The tropical year, by the exactest observation of the most accurate astronomers, is found to be 365 days, 5 hours, 49 minutes, 4 seconds, and 21 thirds.

The following example will make this rule plain to the learner. Thus these following sums being given to be added, viz. 13*l.* 13*s.* 4*d.* 2*qrs.* and 79*l.* 7*s.* 10*d.* 3*qrs.* and 33*l.* 18*s.* 9*d.* 1*qr.* and also 15*l.* 6*s.* 5*d.* 0*qrs.* the numbers being disposed according to order will stand as in the margin. Then begin at

the denomination of farthings, and add them up; saying 1 and 3 are 4, and 2 makes 6. Now, I consider that 6 farthings are 1 penny and 2 farthings; wherefore I set down the 2 farthings in its place under the line, and keep 1 in mind to be added to the next denomina-

<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
136	13	4	2
79	7	10	3
33	18	9	1
15	9	5	0
265	9	5	2

tion of pence. Then I go on, saying, 1 that I carried and 5 are 6, and 9 are 15, and 10 are 25, and 4 are 29. Now I consider, that 29 pence are 2 shillings and 5 pence; therefore I set the 5 pence in order under the line, and keep 2 in mind for 2 shillings, to be added to the shillings. Then I go on, saying, 2 that I carried and 9 are 11, and 18 are 29, and 7 are 36, and 13 are 49. Then I consider that 49 shillings are 2 pounds and 9 shillings; wherefore I set the 9 shillings under the line, and carry 2 for the 2 pounds to the next and last denomination of pounds; and proceed, saying 2 that I carry and 5 makes 7, and three are 10, and 9 are 19, and 6 are 25. Then I set down 5, and carry 2 for the 2 tens, and proceed; saying, 2 that I carried and 1 is 3, and 3 are 6, and 7 are 13, and 3 makes 16. And I set down 6, and carry 1 for the 10, and go on; saying, 1 that I carried and 1 are 2; which I set in its place under the line, and the work is finished. And thus I find the sum of the foresaid numbers to be 265 *l.* 9 *s.* 5 *d.* 2 *qrs.* This to the ingenious practitioner is sufficient. But I shall for the further illuminating of the weaker appre-

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hensions, explain the operation of another example in troy weight. And here the learner must take notice of the table of troy weight mentioned before. The numbers given in this example are, 38 *lb.* 7 *oz.* 13 *pw.* 18 *gr.* and 50 *lb.* 10 *oz.* 10 *pw.* 12 *gr.* and 42 *lb.* 8 *oz.* 5 *pw.* 16 *gr.* And in order to the addition thereof, I place them as you see, and proceed to operation; saying, 16 and 12 are 28, and 18 are 46. Now, because 24 grains make 1 penny weight, 46 grains are 1 penny weight, and 22 grains; wherefore I set down 22, and carry 1. for the penny weight: and going on, I say, 1 that I carry and 5 are 6, and 10 are 16, and 13 are 29; which is 1 ounce and 9 penny weight. I set down 9 in its place under the line, and carry one to the ounces; saying, 1 that I carry and 8 are 9, and 10 are 19, and 7 are 26. And because 26 ounces make 2 pounds 2 ounces, I set down 2 for the ounces, and carry 2 to the pounds, going on, 2 that I carry and 2 are 4, and 8 makes 12; that is 2 and go 1: then 1 I carry and 4 are 5, and 5 are 10, and 3 makes 13; which I set down as in the margin, and the work is finished: and I find the sum of the said numbers to amount to 132 *lb.* 2 *oz.* 9 *pw.* 22 *gr.* This is sufficient for the understanding the following examples, or any other that shall come to thy view. The way of proving these, or any sum in this rule, is shewed immediately after the ensuing examples.

Addition of troy weight.

<i>lb.</i>	<i>oz.</i>	<i>pw.</i>	<i>gr.</i>	<i>lb.</i>	<i>oz.</i>	<i>pw.</i>	<i>gr.</i>
15	7	13	12	145	9	12	18
18	6	4	20	726	8	14	10
11	10	16	18	389	7	6	13
9	4	10	22	83	10	16	20
19	11	18	4	130	0	10	12
22	0	0	0	74	7	18	0
97	5	4	4	1550	8	19	1

Addition of Apothecaries weight.

lb.	oz.	dr.	sc.	gr.	lb.	oz.	dr.	sc.	gr.
48	7	1	0	14	60	3	4	0	10
74	5	5	2	10	48	10	6	0	14
64	10	7	1	11	34	8	2	1	15
17	8	1	0	16	18	11	2	2	11
34	9	6	1	9	160	7	1	2	15
240	5	6	1	0	35	2	5	1	7
					358	7	7	0	12

Addition of avoirdupois weight.

Tuns	C.	qrs.	lb.	lb.	oz.	dr.
75	13	1	15	36	10	12
48	7	3	21	22	11	13
60	11	1	17	11	7	4
21	7	0	25	15	4	10
12	16	0	11	20	10	9
218	17	0	5	106	13	0

Addition of liquid measure.

Tuns	pipes	hhds.	gall.	Tuns	hhds.	gall.	pints
45	1	1	48	30	3	40	4
15	0	1	17	12	0	28	6
38	0	0	47	47	5	60	5
12	1	0	56	57	3	22	3
21	1	1	18	17	0	0	0
133	0	1	60	168	1	26	2

Addition of dry measure.

Chald.	qrs.	bush.	pec.	Qrs.	bush.	pec.	gall.
48	3	7	3	17	3	1	1
13	1	4	0	50	1	3	0
54	0	6	2	14	5	3	1
16	3	6	1	40	2	0	1
40	1	0	1	30	0	3	0
173	3	0	3	152	5	3	1

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Addition of long measure.

Yards.	qrs.	nails.	Ells	qrs.	nails
35	3	3	57	1	3
14	1	2	13	3	2
74	2	3	48	2	1
38	0	1	50	1	0
30	1	0	74	0	2
15	0	0	17	1	0
208	1	1	260	0	0

Addition of land measure.

Acres	roods	perches	Acres	roods	perches
12	3	18	86	1	36
14	0	24	47	3	24
30	2	19	73	2	18
48	3	30	60	0	7
28	1	38	4	2	8
50	3	26	14	1	14
185	3	35	286	3	27

The proof of addition.

Addition is proved after this manner. When you have found out the sum of the number given, then separate the uppermost line from the rest with a stroke or dash of the pen, and then add them all up again as you did before, leaving out the uppermost line; and having so done, add the new invented sum to the uppermost line you separated; and if the sum of those two lines be equal to the sum first found out,

then the work was performed true, otherways not. As for example : let us prove the first example of addition of money whose sum we found to be 265 *l* 9*s* 5*d* 2*qrs*, and which we prove thus. Having separated the uppermost number from the rest by a line, as you see in the margin; then add the same together again, leaving out the said uppermost line, and the sum thereof I set under the first sum

<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
136	13	4	2
79	7	10	3
33	18	9	1
15	9	5	0
265	9	5	2
128	16	1	0
265	9	5	2

or true sum, which doth amount to 128 *l.* 16 *s.* 1 *d.* 0 *grs.*, then again I add this new sum to the uppermost line that before was separated from the rest, and the sum of those two is 265 *l.* 9 *s.* 5 *d.* 2 *grs.*, the same with the first sum; and therefore I conclude that the operation was rightly performed.

The main end of addition in questions resolvable thereby, is to know the sum of several debts, parcels, integers, &c. Some questions may be these that follow.

Quest. 1. There was an old man whose age was required. To which he replied, I have seven sons, each having two years between the birth of each other; and in the 44th year of my age my eldest son was born, which is now the age of my youngest. I demand, What was the old man's age?

Now, to resolve this question, first set down	44
the father's age at the birth of the first child, which	12
was 44; then the difference between the oldest	44
and the youngest, which is 12 years; and then	
the age of the youngest, which is 44; and then	100
add them all together; and their sum is 100, the	
complete age of the father.	

Quest. 2. A man lent his friend at several times these several sums, viz. at one time 63 *l.* at another time 50 *l.* at another time 48 *l.* at another time 156 *l.* Now, I desire to know how much he lent him in all?

Set the sums lent under one another as you see	63
in the margin; and then add them together,	50
and you will find the sum to amount to 317 <i>l.</i>	48
which is the total of all the several sums lent,	156
and so much is due to the creditor.	
	317

Quest. 3. From London to Ware is 20 miles, thence to Huntingdon 29 miles; thence to Stamford 21 miles, thence to Tuxford 36 miles, thence to Wentbridge 25 miles, from thence to York 20 miles. Now I desire to know how many miles it is from London to York, according to this reckoning?

Now to answer this question, set down the several distances given, as you see in the margin ; and add them together, and you will find their sum to amount to 151; which is the true distance in miles between London and York.

20
29
21
36
25
20

151

Quest. 4. There are two numbers, the least whereof is 40, and the difference 14. I desire to know what is the greater number, and also what is the sum of both? First set down the least, viz. 40, and 14 the difference ; and add them together, and the sum is 54 for the greater number. Then I set 40 (the least) under 54, (the greatest,) and add them together, and their sum is 94, equal to the greatest and least numbers.

Greatest 54
Least 40
—
94

Of subtraction of whole numbers.

1. **S**ubtraction is the taking of a lesser number out of a greater of like kind, whereby to find out a number, being or declaring the inequality, excess or difference between the numbers given. Or, subtraction is that by which one number is taken out of another number given, to the end that the residue or remainder may be known; which remainder is also called the rest, remainder or difference of the numbers given.

2. The number out of which subtraction is to be made, must be greater, or at least equal with the other number given. The higher or superior number is called the major number; and the lower or inferior is called the minor number; and the operation of subtraction being finished, the rest or remainder is called the difference of the numbers given.

3. In subtraction, place the numbers given respectively the one under the other, in such sort as like degrees, places, or denominations may stand in the same series, viz. units under units, tens under tens, pounds under pounds, &c. feet under feet, and parts under parts,

Sec. This being done, draw a line underneath, as in addition.

4. Having placed the numbers given as is before directed, and drawn a line under them, subtract the lower number (which in this case must always be less than the uppermost) out of the higher number, and subscribe the difference or remainder respectively below the line; and when the work is finished, the number below the line, will give you the remainder.

As for example: let 364521 be given to be subtracted from 795836. I set the lesser under the greater, as in the margin, and draw a line under them; then beginning at the right hand, I say, 1 out of 6 and there remains 5, which I set in order under the line. Then I proceed to the next, saying 2 from 3 refts 1, which I note also under the line. And thus I go on till I have finished the work. And then I find the remainder or difference to be 431315.

$$\begin{array}{r} 795836 \\ 364521 \\ \hline 431315 \end{array}$$

5. But if it so happen, as commonly it doth, that the lowermost number or figure is greater than the uppermost; then, in this case, add 10 to the uppermost number, and subtract the said lowermost number from their sum, and the remainder place under the line; and when you go to the next figure below, pay an unit, by adding it thereto for the 10 you borrowed before, and subtract that from the higher number of figures. And thus go on till your subtraction be finished. As for example: let 437503 be given, from whence it is required to subtract 153827. I dispose of the numbers as is before directed, and as you see in the margin; then I begin, saying, 7 from 3 I cannot, but, adding 10 thereto, I say, 7 from 13, and there remains 6; which I set under the line in order. Then I proceed to the next figure, saying 1 that I borrowed and 2 is 3 from 0 I cannot, but 3 from 10, and there remains 7; which I likewise set down as before. Then 1 that I borrowed and 8 is 9 from 5 I cannot, but 9 from 15, and there remains 6. Then 1 I borrowed and 3 is 4 from 7, and there remains 3. Then 5 from 3 I cannot, but 5 from 13, and there remains 8. Then 1 I borrowed and 1 are 2 from 4, and

$$\begin{array}{r} 437503 \\ 153827 \\ \hline 283676 \end{array}$$

there rests 2. And thus the work is finished. And after these numbers are subtracted from one another, the inequality, remainder, excess, or difference, is found to be 283676. Examples for thy further experience may be these that follow.

From 3469916
Take 738642

Rests 2731274

From 361576
Take 5864

Rests 355712

6. If the sum or number to be subtracted is of several denominations, place the lesser sum below the greater, and in the same rank and order as is shewed in addition of the same numbers. Then begin at the right hand; and take the lower number out of the uppermost, if it be lesser; but if it be bigger than the uppermost, then borrow an unit from the next greater denomination, and turn into the parts of the less denomination, and add those parts to the uppermost, noting the remainder below the line. Then proceed, and pay one to the next denomination for that which you borrowed before; and proceed in this order, until the work be finished. An example of this rule may be this that followeth. Let 375 *l* 13 *s* 7 *d* 1 *qr* be given, from whence let it be required to subtract 57 *l* 16 *s* 3 *d* 2 *qrs*. In order whereunto I place the numbers as you see in the margin. And thus I begin at the least denomination, saying, 2 from 1 I cannot, therefore I borrow 1 penny from the next denomination, and turn it into farthings, which is 4; and adding 4 to 1, which is 5, I say, 2 from 5, and there remains 3; which I put under the line. Then going on, I say, 1 that I borrowed and 3 is 4 from 7, and there rests 3. Then going on, I say 16 from 13 I cannot, but borrowing 1 pound, and turning it into 20 shillings, I add it to 13, and that is 33; wherefore I say, 16 from 33, and there remains 17, which I set under the line; and go on, saying 1 that I borrowed and 7 is 8 from 5 I cannot, but 8 from 13, and there remains 5; the 1 that I borrowed and 5 is

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
375	13	7	1	
57	16	3	2	
317	17	3		

from 7, there rests 1, and 0 from 3 rests 3. And I find the remainder or difference to be 317*l* 17*s* 3*d* 3*grs*.

An example of troy weight may be this. I would subtract 17*lb* 10*oz* 11*pw* 20*gr* from 24*lb* 5*oz* 0*pw* 8*gr*. I place the numbers according to the rule; and begin, saying 20 from 8 I cannot, but borrow 1 penny weight, which is 24 grains, and add them to 8, and they are 32, wherefore I say, 20 from 32 rests 12. Then 1 that I borrowed and 11 is 12 from 0 I cannot, but 12 from 20, borrowing an ounce, which is 20 penny weight, and there remains 8. Then 1 that I borrowed and 10 is 11 from 5 I cannot, but 11 from 17, and there rests 6. Then 1 that I borrowed and 7 is 8 from 4 I cannot, but 8 from 14, and there rests 6. Then 1 that I borrowed and 1 is 2 from 2, and there rests nothing. So that I find the remainder or difference to be 6*lb* 6*oz* 8*pw* 12*gr*.

<i>l</i>	<i>oz</i>	<i>pw</i>	<i>gr</i>
24	5	0	8
17	10	11	20
6	6	8	12

7. It many times happeneth, that you have many sums or numbers to be subtracted from one number; as suppose a man should lend his friend a certain sum of money, and his friend hath paid him part of his debt at several times. Then before you can conveniently know what is still owing, you are to add the several numbers or sums of payments together, and subtract their sum from the whole debt, and the remainder is the sum due to the creditor. As suppose A lendeth to

B 564*l* 16*s* 10*d* and B hath repaid him 79*l* 16*s* 8*d* at one time, and 163*l* 18*s* 11*d* at another time, and 241*l* 15*s* 8*d* at another time; and you would know how the account standeth between them, or what more is due to A. In order whereunto I first set down the sum which A lent, and draw a line underneath it; then under that line I set the several sums of payment

	<i>l</i>	<i>s</i>	<i>d</i>
Lent	564	16	10
Paid at several payments	79	16	8
	163	18	11
	241	15	8
Paid in all	485	11	3
Remains	79	5	7

as you see in the margin; and having brought the several sums of payment into one total, I find their sum amounteth to 485*l* 11*s* 3*d*, which I subtract from the sum first lent by A, and I find the remainder to be 79*l* 5*s* 7*d*, and so much is still due to A.

When the learner hath good knowledge of what hath been already delivered, he will with ease understand the following examples.

Subtraction of money.

	<i>l</i>	<i>s</i>	<i>d</i>	<i>l</i>	<i>s</i>	<i>d</i>	<i>qrs</i>
Borrowed	374	10	3	700	10	11	1
Paid	97	15	11	9	3	11	2
Remains	276	14	4	691	6	11	3

Borrowed	1000	0	0	711	3	0	0
Paid	19	6	0	11	13	0	1
Remains due	980	13	9	699	9	11	3

Borrowed	-	-	-	3300	0	0	0
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Paid at several payments	170	10	0	0
	360	13	10	1
	590	3	14	3
	74	4	11	3

Paid in all	1195	13	0	3
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Remains due	-	-	-	2104	6	11	1
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Subtraction of troy weight.

				<i>lb</i>	<i>oz</i>	<i>dr</i>	<i>gr</i>
Bought	-	-	-	174	0	13	0
Sold	-	-	-	78	4	16	15
Remains	-	-	-	95	7	16	9

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	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>	<i>gr.</i>
Bought	470	10	1	0
Sold at several times	60	0	0	0
	35	10	18	0
	16	7	9	8
	48	4	0	0
	61	11	19	23
	23	0	0	0
Sold in all	245	10	7	7
Remains unfold	224	11	13	17

Subtraction of apothecaries weight.

	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>	<i>sc.</i>	<i>gr.</i>	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>	<i>sc.</i>	<i>gr.</i>
Bought	12	4	3	0	0	20	0	1	0	7
Sold	8	5	1	1	15	10	0	1	2	12
Remains	3	11	1	4	5	9	11	7	0	15

Subtraction of avoirdupois weight.

	<i>C. qrs.</i>	<i>lb.</i>	<i>T. C. qrs.</i>	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>
Bought	35	0	15	5	7	1
Sold	16	2	20	3	17	1
Remains	18	1	23	1	9	3

Subtraction of liquid measure.

	<i>Tuns.</i>	<i>bhds.</i>	<i>gall.</i>	<i>Tuns.</i>	<i>bhds.</i>	<i>gall.</i>	<i>pints.</i>
Bought	40	1	30	60	3	42	4
Sold	16	1	40	15	0	46	6
Rem.	23	3	53	44	2	58	6

Subtraction of dry measure.

	<i>Chal.</i>	<i>qrs.</i>	<i>bush.</i>	<i>pec.</i>	<i>Chal.</i>	<i>qrs.</i>	<i>bush.</i>	<i>pec.</i>
Bt.	100	0	0	0	73	2	3	2
Sd.	54	1	4	3	46	2	3	3
Rem.	45	2	3	1	26	2	7	3

Subtraction of long measure.

	<i>Yards.</i>	<i>qrs.</i>	<i>nails.</i>	<i>Yards.</i>	<i>qrs.</i>	<i>nails.</i>
Bt.	160	0	0	344	0	1
Sold	95	1	2	177	0	3
Rem.	64	2	2	166	3	2

Subtraction of land measure.

	<i>Acres.</i>	<i>roods.</i>	<i>perch.</i>	<i>Acres</i>	<i>roods</i>	<i>perch.</i>
Bt.	140	2	13	600	0	0
Sold	70	3	12	54	0	16
Remains	69	3	1	545	3	24

Proof of subtraction.

Sums in this rule are easily proved, by adding their remainders to their lesser numbers; which (if right) will make the greater.

MULTIPLICATION.

Multiplication may be accounted the most serviceable rule in arithmetic; it performeth the work of many additions in the most compendious manner, brings numbers of great denominations into small, as pounds into shillings, pence, or farthings; tons into hundreds, quarters, pounds, or ounces, &c. and by knowing the value of one thing, we find the value of many.

In multiplication observe these three terms, multiplicand, multiplier, product.

1. The multiplicand, (generally the greater of the two numbers) is the number to be multiplied.

2. The multiplier (generally the lesser of the two numbers) is the number to be multiplied with.

3. The product, is the result of the work, or the answer to the question. But before any thing can be done

to the purpose, it is necessary to learn the following table perfect by heart.

The Multiplication Table.

3 times	{	3	9
		4	12
		5	15
		6	18
		7	21
		8	24
		9	27
4 times	{	4	16
		5	20
		6	24
		7	28
		8	32
		9	36
5 times	{	5	25
		6	30
		7	35
		8	40
		9	45
6 times	{	6	36
		7	42
		8	48
		9	54

$$7 \text{ times } \begin{cases} 7 & 49 \\ 8 & 56 \\ 9 & 63 \end{cases}$$

$$8 \text{ times } \begin{cases} 8 & 64 \\ 9 & 72 \end{cases}$$

$$9 \text{ times } 9 \quad 81$$

$$12 \text{ times } \begin{cases} 2 & 24 \\ 3 & 36 \\ 4 & 48 \\ 5 & 60 \\ 6 & 72 \\ 7 & 84 \\ 8 & 96 \\ 9 & 108 \\ 10 & 120 \\ 11 & 132 \\ 12 & 144 \end{cases}$$

What is the amount of 3 times 654?

Answer, If you set the number 654, 3 times down on paper, one over another, the total will be 1962.

But such questions are done by this rule of multiplication much readier, for being set down thus:

654 Multiplicand
3 Multiplier

Now to know how much 3 times 654 is, begin thus, saying, 3 times 4 is 12, the figure 2 of the 12, set below

the line, and bear the 10 of the 12 in mind, as 1; next, 3 times 5 is 15, and the 1 bore in mind, makes 16, so I set 6 below the line, and bear the ten in mind as one; next, I say, 3 times 6 is 18, and 1 bore in mind makes 19, which I set down, and the work will stand as in the margin.

654
3
—
1962

How many is 3 times 472? Set the figures down as in the margin; then say 3 times 2 is 6, which place under the 2 in the multiplicand; then 3 times 7 is 21; set down 1 under 7, and carry 2, for 2 tens, as in addition of one denomination; then 3 times 4 is 12, and 2 is 14, which I set down, and the product is 1416. that is 3 times 472 makes so much; and may be proved by addition, by setting down 472 three times in additional order, and casting it up, which makes the assertion good in the second definition, that this rule compendiously performs the office of addition. Likewise the foregoing examples agree with the first definition; for as 3 times 472 makes 1416 so doth 472 times 3 make the same number.

472
3
—
1416

Example. Again, How many makes 742 multiplied by 4?

742 Multiplicand	} Here I say, 4 times 2 is 8, and 4 times 4 is 16; 6 and carry 1; and 4 times 7 is 28, and 1 is 29, which set down; so the whole product is 2968, as per example.
4 Multiplier	
2968 Product	

More examples of one figure in the multiplier, are these, viz.

Multiplicand	7420	4444	7468	90704	56789
	5	6	7	8	9
Product	37100	26664	52276	725632	511101

In compound multiplication.

When the multiplier consists of more figures than one, you must begin with that figure which is in the place of

units of the multiplier, and go thro' the whole multiplicand, by multiplying each figure of it first by that unit figure, then by the next, to wit, by the figure in the place of tens of the multiplier, then with the third, &c. to the last; always remembering to place the first figure of every product or line (for you will ever have as many as you have significant figures in the multiplier) I say, remember to place the first figure of every line exactly and perpendicularly under the figure you multiply by: and then add the several lines or products together which so collected, gives the total product required, as in the examples following, viz.

Example.

How many is, or are, 23 times 7426? First, 7426
begin with the unit figure 3 in the multiplier, 23
saying, 3 times 6 is 18; 8 (which I set directly
under 3, by which I multiply) and carry 1; 22278
then 3 times 2 is 6, and 1 is 7; then 3 times 14852
4 is 12; 2 and carry 1; then 3 times 7 is 21
and 1 is 22. And so I have done with the 170798
first figure of the multiplier, viz. 3. Then I
go to the next, that is 2, and say, twice 6 is 12; 2 and
carry 1; (which 2 is placed in a direct line under 2 the
multiplying figure) then twice 2 is 4 and 1 is 5; then
twice 4 is 8; and lastly twice 7 is 14, which I set down;
and I add the two products together, saying, 8 is 8, &c.
and the total is the right and proper product or result of
the multiplication, viz. 170798.

527535
15728
4220280
1055070
3692745
2637675
527535

8297070480

275827
19725
1379135
551654
1930789
2482443
275827
5440687575

When cyphers are intermixt with figures in the multiplier then multiply by the figures as above ; and when you come to a cypher in the multiplier, then set down another cypher exactly and perpendicularly under it ; then begin the multiplicand again with the next figure to the cypher in the multiplier, and go through it in the same line, placing the first figure of that product next to the cypher towards the left hand, but then heed must be taken, that the next figure or cypher of the next line must be set down one degree farther towards the left-hand, and not immediately under the last figure set down next to the cypher : as in the following examples may be fully understood.

24393	7864371	327586
402	23604	6030
87486	31457484	9827580
975720	471862260	19655160
	23593113	
9805986	15728742	1975343580
	185630613084	

When you have a cypher or cyphers in the multiplier, at the beginning towards the right hand ; then set it or them backwards from the place of units towards the right hand, and when you have multiplied by the figure or figures, annex the cypher or cyphers :

As in these examples :

4762	47962	4632
70	400	2600
333340	19184800	27792
		9264
		12043200

If you have cyphers in the units place, &c. both in the multiplicand and multiplier, then neglect the cy-

phers in both, and multiply by the figures, and annex as many cyphers to the total product as is the sum of the cyphers, both in multiplicand and multiplier.

As in these examples.

43600 220	42300 12000	376400 2400
852	846	15056
852	423	7528
9372000	507600000	903360000

When you are to multiply by 10, 100, 1000, or 10000, it is only adding or annexing so many cyphers to the multiplicand, as in the multiplier, that is, either 1, 2, 3, or 4 cyphers, and the work is done. Example, Suppose I am to multiply 375 by the numbers above; if I multiply it by 10, then I join 0 to 375, and then it makes, or the product is, 3750: if by 100, then I annex 00, and then it makes 37500: if by 1000, I put to it 000, and then it produces 375000: and lastly, if by 10000, I then add 0000, and then it makes 3750000, &c. And thus may any number be multiplied, when the multiplier consists of an unit with any number of cyphers.

Suppose you want to know how many half-crowns there are in 246*l*. you know that 8 half-crowns make a pound, wherefore set them down thus:

	246 <i>l</i> .
Multipled by	8 the half-crowns in a pound.
Answer	1968 half-crowns in all.

Again, In 1968 half-crowns how many pence?
Multiply by 30 the pence in a half-crown.

Answer 59040 pence in 1968 half-crowns.

And this serves to make out, - that great denominations are brought into smaller by this rule.

Admit you wanted to know the contents of a large table 34 feet long, and 4 feet wide.

Multiply 34 the length
By 4 the breadth, and the

Answer will be 136 square feet for the true contents of such a table.

Multiplication of Money.

Multiplication of Money (what most would learn above every thing) hath great affinity with addition of money, the same method being taken in carrying one denomination to the next, viz. from farthings to pence, from pence to shillings, and from shillings to pounds. And as in addition (and other multiplications) you begin at the right hand, and proceed towards the left; so here you begin at the least denomination, which is also at the right hand.

This method of accompting is the most apt and expeditious of all others, for smaller quantities; and therefore extremely necessary in making bills of parcels, &c. And is beyond all contradiction, as sure and certain as any way whatsoever.

The general rule,

Is always to multiply the price by the quantity.

The first step is, for quantities from 2 to 12; and this is done by one multiplier; as in the following example:

Example 1. What must I give for 6 pieces of cloth, if one cost 7*l.* 12*s.* 6*d.*?

l. *s.*
7 12

Multiply the price by

And the product is the answer, viz. 45 15

Here I say 6 times 6 is 36 pence, which is just 3s. I set down 0 in the place of pence, and carry 3s. to the place of shillings, exactly the same as in addition of money; then 6 times 12 is 72, and 3 is 75s. or 3 l. 15s. wherefore I set down 15 in the place of shillings, and carry 3 to the pounds; then 6 times 7 is 42 and 3 is 45l. So the whole amount of the cloths, at 7l. 12s 6d. per piece, is 45l. 15s. as in the work, and very concise.

Questions proper for this Rule.

Question 1. What is the contents of a square peice of ground, whose length is 28 perches, and breadth 13 perches?

Answer, 364 square perches: for multiplying 28 the length by 13 the breadth, the product is so much.

Question 2. There is a square battle, whose flank is 47 men, and the files 19 deep; what number of men doth that battle contain? *Facit* 893: for multiplying 47 by 19, the product is 893.

Question 3. If any one thing cost 4 shillings, what shall 9 things cost? Answer, 36 shillings: for multiply 4 by 9, the product is 36.

Question 4. If a piece of money or merchandize be worth or cost 17 shillings, what shall 19 such pieces of money or merchandize cost? *Facit* 323 shillings, which is equal to 16l 3s.

Question 5. If a soldier or servant get or spend 14s. per month, what is the wages or charges of 49 soldiers or servants for the same time? Multiply 49 by 14, the product is 686s, or 34l 6s for the answer.

Question 6. If in a day there are 24 hours, how many hours are there in a year, accounting 365 days to constitute the year? *Facit* 8760 hours: to which if you add the 6 hours over and above 365 days, as there is in a year, then it will be 8766 hours. Now, if you multiply this 8766 by 60, you have the number of minutes in a year.

Division of whole numbers.

1 **D**ivision is the separating or parting of any number or quantity given, into any parts assigned; or to find how often one number is contained in another; or from any two numbers given, to find a third, that shall consist of so many units, as the one of those two given numbers is comprehended or contained in the other.

2. Division hath three parts or numbers remarkable, viz. first, the dividend; secondly, the divisor; thirdly, the quotient. The dividend is the number given to be parted or divided. The divisor is the number given by which the dividend is divided; or it is the number which sheweth how many parts the dividend is to be divided into. And the quotient is the number produced by the division of the two given numbers, the one by the other.

So 12 being given to be divided by 3, or into three equal parts, the quotient will be 4, for three is contained in 12 four times; where 12 is the dividend, and 3 is the divisor, and 4 is the quotient.

3. In division set down your dividend, and draw a crooked line at each end of it; and before the line at the left hand place the divisor, and behind that on the right hand place the figures of the quotient, as in the margin; where it is required to $3) 12 (4$ divide 12 by 3. First, I set down 12 the dividend, and on each side of it do I draw a crooked line, and before that on the left hand do I place 3 the divisor. Then do I seek how often 3 is contained in 12; and because I find it 4 times, I put 4 behind the crooked line on the right hand of the dividend, denoting the quotient.

4. But if, when the divisor is a single figure, the dividend consisteth of two or more places; then, having placed them for the work, as is before directed, put a point under the first figure on the left hand of the dividend, provided it be bigger than, or equal to the divisor; or if it be less than the divisor, then put a point under the second figure from the left hand of the dividend; which figures, as far as the point goeth from the left

hand, are to be reckoned by themselves, as if they had no dependence upon the other part of the dividend, and, for distinction's sake, may be called the *dividual*. Then ask how often the divisor is contained in the *dividual*, placing the answer in the quotient. Then multiply the divisor by the figure that you placed in the quotient, and set the product thereof under your *dividual*. Then draw a line under the product, and subtract the said product from the *dividual*, placing the remainder under the said line. Then put a point under the next figure in the dividend on the right hand of that to which you put the point before, and draw it down, placing it on the right hand of the remainder which you found by subtraction, which remainder, with the said figure annexed to it, shall be a new *dividual*. Then seek again how often the divisor is contained in this new *dividual*, and put the answer in the quotient on the right hand of the figure which you put there before. Then multiply the divisor by the last figure that you put in the quotient, and subscribe the product under the *dividual*, and make subtraction, and to the remainder draw down the next figure from the grand dividend, (having first put a point under it,) and put it on the right hand of the remainder for a new *dividual*, as before, &c. and proceed thus till the work is finished.

Observe this general rule in all kinds of division.

First, To seek how often the divisor is contained in the *dividual*. Then, having put the answer in the quotient, multiply the divisor thereby, and subtract the product from the *dividual*. An example or two will make the rule plain. Let it be required to divide 2184 by 6. I dispose the numbers given as is before directed, and as you see in the margin, in order to the work.

Then, because 6 the divisor is more than 2 the first figure of the dividend, I put a point under 1 the second figure, which makes 21 for the *dividual*. Then do I ask how often 6 the divisor is contained in 21, and because I cannot have it more than 3 times, I put 3 in the quotient, and thereby do I multiply the divisor (6) and the product is 18, which I set in order under the *dividual*, and sub-

$$6)2184(3$$

$$6)2184(3$$

$$18$$

$$3$$

tract it therefrom, and the remainder (3) I place in order under the line, as you see in the margin.

Then do I make a point under the next figure of the dividend, being 8, and draw it down, annexing it to the remainder 3; so I have 38 for a new dividual. Then do I seek how often 6 is contained in 38; and because I cannot have it more than 6 times, I put 6 in the quotient; and thereby do I multiply the divisor (6) and the product (36) I put under the dividual (38), and subtract it therefrom, and the remainder (2) I put under the line, as you see in the margin.

$$\begin{array}{r} 6) 2184 \quad (36 \\ \cdot \cdot \cdot \\ 18 \\ \hline 38 \\ 36 \\ \hline 2 \end{array}$$

Then do I put a point under the next (and last) figure of the dividend, (being 4), and draw it down to the remainder (2); and putting it on the right hand thereof, it maketh 24 for a new dividual. Then I seek how often 6 is contained in 24; and the answer is 4, which I put in the quotient, and multiply the divisor (6) thereby, and the product (24) I put under the dividual (24), and subtract it therefrom, and the remainder is 0. And thus the work is finished; and I find the quotient to be 364; that is 6 is contained in 2184 just 364 times, or 2184 being divided into 6 equal parts, 364 is one of those parts.

$$\begin{array}{r} 6) 2184 \quad (364 \\ \cdot \cdot \cdot \\ 18 \\ \hline 38 \\ 36 \\ \hline 24 \\ 24 \\ \hline (0) \end{array}$$

Again, if it were required to divide 2646 by 7, or into 7 equal parts, the quotient will be found to be 378; as appeareth by the operation on the margin.

$$\begin{array}{r} 7) 2646 \quad (378 \\ \cdot \cdot \cdot \\ 21 \\ \hline 54 \\ 49 \\ \hline 56 \\ 56 \\ \hline (0) \end{array}$$

ARITHMETIC.

125

So if it were required to divide 946 by 8 the quotient will be found to be 118, and 2 remaining after division is ended. The work appeareth on the margin.

$$\begin{array}{r} 8 \overline{) 946} \quad (118 \\ \underline{8} \\ 14 \\ \underline{8} \\ 66 \\ \underline{64} \\ (2) \end{array}$$

Many times the dividend cannot exactly be divided by the divisor, but something will remain; as in the last example; where 946 was given to be divided by 8, the quotient was 118 and there remaineth 2 after the division is ended. Now what is to be done in this case with the remainder, the learner shall be taught when we come to treat of the reducing (or reduction) of fractions.

And here note, that if, after your division is ended, any thing do remain, it must be less than your divisor; for otherwise your work is not rightly performed.

Other examples are as follow.

$$8) 73464 \quad (9183$$

$$\begin{array}{r} 72 \\ \underline{14} \\ 8 \\ \underline{66} \\ 64 \\ \underline{24} \\ 24 \\ \underline{24} \\ (0) \end{array}$$

$$9) 13758 \quad (1528$$

$$\begin{array}{r} 9 \\ \underline{47} \\ 45 \\ \underline{25} \\ 18 \\ \underline{78} \\ 72 \\ \underline{72} \\ (0) \end{array}$$

5. But if the divisor consisteth of more places than one, then chuse so many figures from the left side of the dividend for a dividual, as there are figures in the divisor; and put a point under the farthest figure of that dividual to the right hand, and seek how often the first figure on the left side of the divisor is contain'd in the first figure on the left side of the dividual, and place the answer in the quotient, and thereby multiply your divisor, placing your product under your dividual, and subtract it therefrom, placing the remainder below the line. Then put a point under the next figure in the dividend, and draw it down to the said remainder and annex it on the right side thereof, which makes a new dividual; and proceed as before, till the work is finished.

And if it so happen, that, after you have chosen your first dividual as is before directed, you find it to be less than the divisor; then put a point under the figure more near to the right hand, and seek how often the first figure on the left side of the divisor is contained in the two first figures on the left side of the dividual, and place the answer in the quotient; by which multiply the divisor, and place the product thereof in order under the dividual, and subtract it therefrom, and then proceed as before.

Always remembering, that in all cases of division, if, after you have multiplied your divisor by the figure first placed in the quotient, the product be greater than the dividual, then you must cancel that figure in the quotient, and, instead thereof, put a figure less by an unit, (or one) and multiply the divisor thereby: and if still the product be greater than the dividual, make the figure in the quotient less by an unit. And thus do, until your product be less than the dividual, or at the most equal thereto, and then make subtraction, &c.

So, if you would divide 9464 by 24, the quotient will be found to be 394. I first put down the given number, as is before directed in the third rule. Now, because my divisor consisteth of two figures, I therefore put a point under my second figure from the left hand of my dividend, which is 4; wherefore I seek how often 2 (the first fi-

$$\begin{array}{r}
 24 \overline{) 9464} \\
 \underline{72} \\
 22
 \end{array}$$

figure on the left side of the divisor is contain'd in 9 (the like first in the dividend) the answer is 4; which I put in the quotient, and thereby multiply all the divisor, and find the product to be 96, which is greater than the dividend; wherefore I cancel the 4 in the quotient, and, instead thereof, I put 3 (an unit less) and by it multiply the divisor 24, and the product is 72; which I subtract from 94 the dividend, and the remainder is 22. Then do I make a point under the next figure 6 in the dividend, and draw it down, and place it on the right side of the remainder 22, and it makes 226 for a new dividend. Now, because the dividend 226 consisteth of a figure more than the divisor, therefore I seek how often 2 (the figure of the divisor) is contained in 22, the two first of the dividend: I say 9 times: wherefore I put 9 in the quotient, and thereby multiply the divisor 24; the product (216) I place under the dividend 226, and subtract from it, and there remaineth 10.

$$\begin{array}{r}
 24) 9464 \text{ (39} \\
 \quad \dots \\
 \quad 72 \\
 \hline
 \quad 226 \\
 \quad 216 \\
 \hline
 \quad 10
 \end{array}$$

Then I go on, and make a point under the next and last figure (4) in the dividend, and draw it down to the remainder 10, and it makes 104 for a new dividend: which is also a figure more than the divisor; and therefore I seek how often 2 is contained in 10: I answer 5 times.

But multiplying my divisor by 5, the product is 120; which is greater than the dividend: and therefore I make it but 4: and by it multiply the divisor, and the product is 96, which being placed under, and subtracted from the dividend, there remaineth 8. And thus the whole work of division is finished; and I find, that 9464 being divided by 24, or into 24 equal parts, is found to be 394, as was said before, and the remainder is 8; as you see in the work to the margin.

$$\begin{array}{r}
 24) 9464 \text{ (394} \\
 \quad \dots \\
 \quad 72 \\
 \hline
 \quad 226 \\
 \quad 216 \\
 \hline
 \quad 104 \\
 \quad 96 \\
 \hline
 \quad (8)
 \end{array}$$

Another example may be this. Let there be required the quotient of 1183653 divided by 385. First I dispose of the numbers in order to their dividing; and be-

cause 118, the three first figures of the dividend, is less than the divisor 385, I therefore make a point under the fourth figure, which is 3, and see how often 3 (the first figure of the divisor) is contained in 11: the answer is 3, which I put in the quotient, and thereby multiply the divisor 385, and the product is 1155, which I subtract from the dividend 1183, and there remains 28. Then, as before, draw down the next figure, which is 6, and place it before the remainder 28: so have I 286 for a new dividend: and because it hath no more figures than the divisor, I seek how often 3 (the first figure in the divisor) is contained in 2 (the first figure of the dividend): and the answer is 0; for a greater number cannot be contained in a lesser; wherefore I put 0 in the quotient: and thereby (according to the 5th rule) I should multiply my divisor; but if I do, the product will be 0; and 0 subtracted from the dividend 286, the remainder is the same. Wherefore I draw down the next figure (5) from the dividend, and put it before the said remainder 266: so have I 2865 for a new dividend; and because it consisteth of four places, viz. a place more than the divisor, I seek how often 3 (the first figure of the divisor) is contained in 28 (the two first of the dividend) and I say there is 9 times three in 28; but multiplying the whole divisor (385) thereby, I find the product to be 3465, which is greater than the dividend 2865: wherefore I chuse 8, which is less by an unit than 9; and thereby I multiply the divisor 385, and the product is 3080, which is still greater than the said dividend: wherefore I chuse another number yet an unit less, viz. 7, and having multiplied my divisor thereby, the product is 2695; which is less than the dividend 2865; wherefore I put 7 in the quotient, and subtract 2695 from the

$$385) 1183653 (3$$

$$\underline{1155}$$

$$28$$

$$385) 1183653 (3$$

$$\underline{1155}$$

$$286$$

$$385) 1183653 (307$$

$$\underline{1155}$$

$$2865$$

$$\underline{2695}$$

$$170$$

dividu
170.
figure
place
170, a
dividu
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by it
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dual,
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or in 2
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And
of the
for the
many
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5, or
being
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27986

Rema

dividual 2865, and there remains 385)1183653(3074
 170. Then I draw down the last figure (3) in the dividend, and place it before the said remainder 170, and it makes 1703 for a new dividual. Then (for the reason above said) I seek how often 3 is contained in 17: the answer is 5, by multiplying the divisor thereby, the product is 1925 greater than the dividual; wherefore I say it will bear 4, an unit less, and by it I multiply the divisor 385; and the product is 1540, which is less than the dividual, and therefore I put 4 in the quotient, and subtract the said product from the dividual, and there remaineth 163. And thus the work is finished; and I find that 1183653 being divided by 385, or in 385 equal shares or parts, the quotient or one of those parts, is 3074, and besides there is 163 remaining.

And thus the learner being well versed in the method of the foregoing examples, may be sufficiently qualified for the dividing of any greater sum or number, into as many parts as he pleaseth; that is, he may understand the method of dividing by a divisor that consisteth of 4, 5, or 6, or any greater number of places; the method being the same with the foregoing examples in every respect.

Other examples in division.

27986)835684790(29860 196374)473986018(2413

55972

392748

275964

812380

251874

785496

240907

268841

223888

196374

170199

724678

167916

589122

Remains 22830

Remains 135556

So if you divide 47386473 by 58736, you will find the quotient to be 806, and 45257 will remain after the work is ended.

In like manner, if you would divide 3846739204 by 483064, the quotient will be 7963, and the remainder after division will be 100572.

When the divisor is 3, 4, 5, 6, or more figures, there is a sure and easy way of performing the work truly, by making a table of the divisor, which may be done by addition, or multiplying the divisor by 2, 3, 4, &c.

Admit you are to divide 987654321 by 123456

$$\begin{array}{r}
 123456) 987654321 \text{ (3000)} \\
 \underline{987648} \\
 6321
 \end{array}$$

Here having noted the number of figures in the divisor, which here is six, I make a point under the seventh figure, or place of the dividend, &c.

1	123456
2	246912
3	370368
4	493824
5	617280
6	740736
7	864192
8	987648
9	1111104

This table is made by doubling the first line, which is 246912, which added to the first or uppermost line gives the third line 370368, which also added to the said first line makes 493824 for the fourth line or product; and so of the rest, still remembering to add the subsequent line, till you come to the last line of 9 times, which is 1111104. The truth of which may be proved by multiplying the first or uppermost line by 2, 3, 4, 5, &c. and if you commit an error by addition it may be found out, or corrected by multiplication.

The use of the said table.

When you have pointed out your number of places in the dividend, cast your eye on the table, and at the first view you may know how many times you can take; as in this example, 7 times is too little, and 9 times too much, wherefore I set down 8 in the quotient, and then multiply and subtract, and the remainder is 6; to which I bring down 3, and put 0 in the quotient, then to the 63 I bring down 2, and place another 0 in the quotient, then to 632 I bring down 1 the last figure in the dividend, but still it will not bear any time or times, wherefore I put another 0 in the quotient, and so the work is done, and the quotient is 8000, and the remainder 6321. as in the work.

Abbreviations.

(1st.) If there are any cyphers on the right hand of your divisor, you may cut off so many cyphers, or figures, on the right hand of your dividend, but remember to bring them down (if figures) to the remainder.

Example.

$$\begin{array}{r} 21100)8645129(411 \\ 84 \end{array}$$

24

21

35

21

1429

(2dly.) By the foregoing rule you may observe, that to divide by 10, 100, 1000, &c. is only to cut so many figures from the right hand of the dividend, as there are cyphers in the divisor.

Example.

$$1000)436821735$$

So the quotient is 43682, the remainder 735.

(3dly.) When your divisor is 12, or consists only of one single figure, or can be reduced to one by cutting

off cyphers from its right hand, the work may be easily performed in one line, thus :

Rule.

Drawing a line under the dividend, set down under its first figure, how often the divisor is contained in it : what remains imagine placed before the next figure, and, considering how often your divisor is contained in the sum it makes, set down the number underneath, as before, and so proceed through all the figures, set down what remains at last, in the place where your quotient used to stand.

Examples.

$$4 \overline{)93645(1}$$

$$23411$$

$$12 \overline{)83675(11}$$

$$6972$$

$$7100 \overline{)5635115}$$

$$805$$

If you are to divide several numbers by one common divisor (as in the calculating of tables, &c.) that you may know exactly at once how often your divisor will go, in some convenient corner make a table of your divisor by multiplying it severally by all the nine digits ; thus suppose 562 your divisor :

562	1
1124	2
1686	3
2248	4
2810	5
3372	6
3934	7
4496	8
5058	9

Proofs of division.

(1st.) Multiplication and division mutually prove each other : for as if you divide the product of a multiplication by the multiplier, the quotient will be the multiplicand ; so if you multiply the quotient of a division by the divisor (taking in the remainder) the product will be the dividend.

(2dly) Another proof of division is, by adding together those lines in the following example, marked with asterisks (being the particular products of the divisor, multiplied severally by each figure in the quotient, together with the remainder of the division) the total of which, if right, will be the dividend.

(3dly) Division may also be proved as multiplication, by a cross, thus; casting out the nines from the divisor, and quotient, place the remainders on its right and left sides, then multiplying the two figures so placed together and casting the nines from the product, and what's left to the remainder of the division, and still casting out the nines, let the overplus be placed at the top; then also casting the nines from the dividend, set down the figure remaining at the bottom, which if it agrees with that at the top, the work may be supposed right. See each proof in the following

Example.

$ \begin{array}{r} 736 \overline{) 863256} \\ \underline{736} \\ 1272 \\ \underline{736} \\ 5365 \\ \underline{5152} \\ 2136 \\ \underline{1472} \\ 664 \end{array} $	$ \begin{array}{r} 1172 \\ \underline{736} \\ 7032 \\ \underline{3516} \\ 8204 \\ \underline{862592} \\ 664 \text{ Remainder} \end{array} $
--	---

863256 1st Proof

863256 2d Proof

3
7 — 2
3
3d Proof

REDUCTION.

Reduction is that which brings together two or more numbers of different denominations into one denomination; or it serveth to change or alter numbers, money, weight, measure, or time from one denomination to another; and likewise to abridge fractions to the lowest terms; all which it doth so precisely, that

the first proportion remaineth without the least jot of error or wrong committed: so that it belongeth as well to fractions as integers; of which in its proper place. Reduction is generally performed either by multiplication or division. From whence we may gather, That,

2. Reduction is either descending or ascending.

3. Reduction descending is, when it is required to reduce a sum or number of a greater denomination into a lesser, which number, when it is so reduced, shall be equal in value to the number first given in the greater denomination: as if it were required to know how many shillings, pence, or farthings, are equal in value to an hundred pounds? or, how many ounces are contained in 45 hundred weight? or, how many days, hours, or minutes, there are in 240 years? &c. And this kind of reduction is generally performed by multiplication.

4. Reduction ascending is, when it is required to reduce or bring a sum or number of a smaller denomination into a greater, which shall be equivalent to the given number; as suppose it were required to find how many pence, shillings or pounds, are equal in value to 43785 farthings? or how many hundreds are equal to, or in, 3748 pounds, &c. And this kind of reduction is always performed by division.

5. When any sum or number is given to be reduced into another denomination, you are to consider whether it ought to be resolved by the rule descending or ascending, viz. by multiplication, or division. If it be to be performed by multiplication, consider how many parts of the denomination into which you would reduce it, are contained in an unit or integer of the given number, and multiply the said given number thereby, and the product thereof will be the answer to the question. As if the question were, In 38 pounds how many shillings? Here I consider, that in one pound are 20 shillings, and that the number of shillings in 38 pounds, will be 20 times 38; wherefore I multiply 38/. by 20, and the product is 760, and so many shillings are contained in 38/. as in the margin.

38
20
—
760

But when there is a denomination or denominations between the number given and the number required,

you may, if you please, reduce it to the next inferior denomination, and then into the next lower than that, &c. until you have brought it into the denomination required. As for example; let it be demanded, In 132 pounds how many farthings? First, I multiply 132 (the number of pounds given) by 20 to bring it into shillings, and it makes 2640 shillings. Then do I multiply the shillings 2640 by 12 to bring them into pence, and it produceth 31680, and so many pence are contained in 2640 shillings, or 132 pounds. Then do I multiply the pence, viz. 31680 by 4, to bring them into farthings, (because 4 farthings is a penny) and I find the product thereof to be 126720, and so many farthings are equal in value to 132 pounds. The work is manifest in the margin.

$$\begin{array}{r}
 132 \text{ pounds} \\
 \underline{20} \\
 2640 \text{ shillings} \\
 \underline{12} \\
 31680 \\
 \underline{4} \\
 126720 \text{ farthings}
 \end{array}$$

6. And if the number propounded to be reduced is to be divided, or wrought by the rule ascending, consider how many of the given numbers are equal to an unit or integer in that denomination to which you would reduce your given number, and make that your divisor, and the given number your dividend; and the quotient thence arising will be the number sought or required. As for example; let it be required to reduce 2640 shillings into pounds. Here I consider that 20 shillings are equal to one pound; wherefore I divide 2640, the given number, by 20, and the quotient is 132, and so many pounds are contained in 2640 shillings. In reduction descending and ascending, the learner is advised to take particular notice of

$$\begin{array}{r}
 2640 \text{ shillings} \\
 \underline{20} \\
 132 \text{ pounds}
 \end{array}$$

the tables delivered in the former part of this book, where he may be informed what multipliers or divisors to make use of in the reducing of any number to any o-

ther denomination whatsoever, especially English monies, weights, measures, time, and motion. But in this place it is not convenient to meddle with foreign coins, weights, or measures.

But if in reduction ascending it happen that there is a denomination, or denominations between the number given and the number required, then you may reduce your number given into the next superior denomination, and when it is so reduced, bring it into the next above that, and so on, until you have brought it into the denomination required. As for example;

Let it be demanded, In 126720 farthings how many pounds? First I divide my given number, being farthings, by 4, to bring them into pence, because 4 farthings make one penny; and there are 31680 pence. Then I divide 31680 pence by 12, and the quotient giveth 2640 shillings. And then I divide 2640 shillings by 20, and the quotient giveth 132^l. which are equal in value to 126720 farthings. See the work.

4) 126720	12) (31680	20) (2640 ..	1. (132
12 6 4 27 24 32 32 (0)	24 76 72 48 48 (0)	2 6 6 4 4 (0)	

7. When the number given to be reduced, consisteth of divers denominations, as pounds, shillings, pence, and farthings, or of hundreds, quarters, pounds, and ounces, &c. then you are to reduce the highest, or greatest denomination into the next inferior, and add thereunto the number standing in that denomination, which your greatest or highest number is reduced to. Then reduce

that sum into the next inferior denomination, adding thereto the number standing in that denomination. Do so until you have brought the number given into the denomination proposed. As, if it were required to reduce 48*l.* 13*s.* 10*d.* into pence: first I bring 48 *l.* into shillings, by multiplying it by 20, and the product is 960 shillings; to which I add the 13 shillings, and they make 973. Then I multiply 973 by 12, to bring the shillings into pence, and they make 11676; to which I add the 10 pence, and they make 11686 pence for the answer. See the work done.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	48	13	10
	20		
	960 shillings		
Add	13		
Sum	973	shillings	
	12		
	11676		
	973		
	11676 pence		
Add	10		
Sum	11686	pence	

8. If in reduction ascending, after division is ended, anything remain, such remainder is of the same denomination with the dividend.

Example. In 4783 farthings, I demand how many pounds? View the following operation.

First, I divide the given number of farthings, viz. 4783, by 4, to bring them into pence, and the quotient is 1195 pence, and there remaineth 3 after the work of division is ended, which is 3 farthings.

	12)	210)
4) 4783	(1195	(99 (4 pounds
....	108	8
4	115	19 shillings
—	108	—
7	—	—
4	—	—
—	—	—
38	Rem. 7 pence	—
36	—	—
—	—	—
23	Facit 4	19 7 3
20	—	—
—	—	—

Again, I divide 1195 pence, the said quotient, by 12 to reduce 'em

into shillings, and the quotient is 99 shillings; and there is a remainder of 7, which is 7 pence.

And then divide 99 shillings (the last quotient) by 20, to bring it into pounds, and the quotient is 4*l.* and there remaineth 19 shillings; so that I conclude that in 4783 (the proposed number of farthings) there is 4*l.* 19*s.* 7*d.* 3 *grs.*

More examples in the reduction of coin.

Quest. In 438*l.* how many shillings? Facit 8760 shillings; for multiplying 438 by 20. the product amounteth to so much. See the work.

$$\begin{array}{r} 438 \text{ pounds} \\ 20 \\ \hline \text{Facit } 8760 \text{ shillings} \end{array}$$

Quest. In 467*l.* how many pence? First multiply the given number of pounds (467) by 20, to bring it into shillings; and it makes 9340 shillings; then multiply the shillings by 12, and it produceth 112080 pence, thus,

$$\begin{array}{r} 467 \text{ pounds} \\ 20 \\ \hline 9340 \text{ shillings} \\ 12 \\ \hline 1868 \\ 934 \\ \hline \text{Facit } 112080 \text{ pence} \end{array}$$

Or it may be resolved thus, viz. Multiply the given number of pounds (467) by (240) the number of pence in a pound, and the product is the same, viz. 112080 pence; as by the operation appeareth.

$$\begin{array}{r} 467 \text{ pounds} \\ 240 \\ \hline 1868 \\ 934 \\ \hline \text{Facit } 112080 \text{ pence} \end{array}$$

Quest. In 5673 l. how many farthings? First multiply the given number by 20, to bring it into shillings, and it produceth 113460 shillings; then multiply that product by 12, to bring it into pence, and it produceth 1361520 pence; then, lastly, multiply the pence by 4, and it produceth 5446080 farthings. See the operation.

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{20} \\
 113460 \text{ shillings} \\
 \underline{12} \\
 22692 \\
 11346 \\
 \underline{1361520 \text{ pence}} \\
 4 \\
 \text{Facit } 5446080 \text{ farthings}
 \end{array}$$

Or this question might have been thus resolved, viz. Multiply 5673 (the given number of pounds) by 960 (the number of farthings in a pound) and it produceth the same effect; as you see by the work.

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{960} \\
 34038 \\
 51057 \\
 \text{Facit } 5446080
 \end{array}
 \qquad
 \begin{array}{r}
 20 \text{ shillings} \\
 \underline{12} \\
 240 \text{ pence} \\
 \underline{4} \\
 960
 \end{array}$$

Otherwise thus: First, bring the given number 5673 l. into shillings, and multiply the shillings by 48, the number of farthings in a shilling, and the same effect is thereby likewise produced, viz.

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{20} \\
 113460 \text{ shillings} \\
 \underline{48} \\
 90768 \\
 45384 \\
 \text{Facit } 5446080 \text{ farthings}
 \end{array}
 \qquad
 \begin{array}{r}
 12 \text{ pence} \\
 \underline{4} \\
 48 \text{ farthings}
 \end{array}$$

These various ways of operation are expressed to inform the judgment of the learner with the reason of the rule. More ways may be shewn, but these are sufficient even for the meanest capacities.

Quest. In 458 l. 16 s. 7 d. 3 qrs. how many farthings? To resolve this question, consider the seventh rule, and work as you are there directed, and you will find the foresaid given numbers to amount to 440479 farthings, viz.

	l.	s.	d.	qrs.
	458	16	7	3
		20		
	9160			
Add		16	shillings	
Sum	9176	shillings		
		12		
	18352			
	9176			
	110112			
Add		7	pence	
Sum	110119	pence		
		4		
	440476			
Add		3	farthings	
Sum	440479	farthings		

This last question, or any other of this kind, viz. where the number given to be reduced consisteth of several denominations, may be much more concisely resolved this way, viz. When you multiply the pounds by 20, to bring them into shillings, to the product of the first figure add the figure standing in the place of units in the denomination of shillings; but because the first figure in the

	l.	s.	d.	qrs.
	458	16	7	3
		20		
	9176	shillings		
		12		
	18359			
	9176			
	110119	pence		
		4		
Facit	440479	farthings		

multiplier is 0, I say, 0 times 8 is nothing, but 6 is 6, which I put down for the first figure in the product. Then because the multiplier is 0, I go no further with it, for if I should, the whole product would be 0; but proceed. And when I come to multiply by the second figure in the multiplier, to the product of it I add the figure standing in the place of tens in the denomination of shillings, which is 1; saying, 2 times 8 is 16, and (the said figure) 17. Then I set down 7, and carry the unit to the product of the next figure, as has been directed before. So that now you may have the whole product and sum of shillings at one operation, which is the same as before. And when you multiply the shillings by 12, to bring them into pence, after the same manner, add to the product the number standing in the denomination of pence; and so when you multiply the pence by 4, to bring them into farthings, add to the product the number standing under the denomination of farthings. See the last question thus wrought on the margin of the preceeding page.

Reduction of troy weight.

We now come to give the learner some examples in troy weight, wherein we shall be brief, having given so large a taste of reduction in the former examples of coin. And now the learner must be mindful of the table of troy weight delivered in addition.

Quest. In 482 lb. 7 oz. 13 pw. 21 gr. how many grains?

Multiply by 12, by 20, and by 24, taking in the figures standing in the several denominations, according to the directions, given formerly and you will find the product to be 2780013 grains, which is the number required, or answer to the question. See the whole work as followeth.

ARITHMETIC.

l. oz. pw. gr.

482 7 13 21

12

971

482

5791 ounces

20

115833 penny wt.

24

463333

231668

Facit 2780013

Quest. In 2780013 grains, I demand how many lb. oz. pw. gr.?

This is but the foregoing question inverted, and is resolved by dividing by 24, by 20, and by 12; and the answer is 482 lb. 7 oz. 13 pw. 21 gr.

	20	12
24)2780013	(11583 ¹ / ₃	(5791
.....		
24	10	48
38	15	99
24	14	96
140	18	31
120	18	24
200	3	Rem. 7 ounces.
192	2	
81	Rem. 13 penny weight	
72		
93	l. oz. pw. gr.	
72	Facit 482 7 13 21	

Remains 21 grains.

Reduction of avoirdupois weight.

In reducing of avoirdupois weight, the learner must have recourse to the table of avoirdupois weight delivered before.

Quest. In 47 C. 1 qr. 20 lb. How many ounces? Multiply by 4, by 28, and by 16, and the last product will be the answer, viz, 84992 ounces.

C. qr. lb.

47—1—20

4

189 quar.

28

1512

380

5312

16

32872

5312

Facit 84992 oz.

Quest. In 84992 ounces, I demand how many C. qrs. lb. and oz.?

This is the foregoing question inverted, and will be resolved if you divide by 16, by 28, and by 4; and the answer is 47 C. 1 qr. 20 lb. equal to the given number in the foregoing question.

28) 4) C. qrs. lb. oz.
(6)84992 (5312 (189 (47 1 20 0

80

28

16

49

251

29

48

224

29

19

272

1 qr.

15

252

32

20 pounds.

32

(0)

Reduction of liquid measure.

Quest. In 45 tuns of wine, how many gallons? Multiply by 4, and 63; the product is 11340 gallons for the answer.

$$\begin{array}{r}
 45 \\
 4 \\
 \hline
 180 \\
 63 \\
 \hline
 54 \\
 108 \\
 \hline
 \end{array}$$

Facit 11340

Quest. In 34 rundlets of wine, each containing 18 gallons, I demand how many hogheads?

First, find how many gallons are in the 34 rundlets, which you may do if you multiply 34 by 18, the content of a rundlet, and the product is 612 gallons. which you may reduce into hogheads, if you divide them by 63, and the quote will be 9 hogheads, and 45 gallons. See the work.

$$\begin{array}{r}
 34 \\
 18 \\
 \hline
 272 \\
 34 \\
 \hline
 63)612(9 \text{ hdds} \\
 567 \\
 \hline
 \end{array}$$

Rem. 45 gall.

Facit 9 hhds. 45 gall.

Quest. In 12 tuns, how many rundlets of 14 gallons per rundlet?

Reduce your tuns into gallons, and divide them by 14, the gallons in a rundlet, and the quotient, 216, is your answer. See the work.

$$\begin{array}{r}
 12 \\
 4 \\
 \hline
 48 \\
 63 \\
 \hline
 144 \\
 288 \\
 \hline
 14 \overline{) 3024} \quad (216 \text{ rundlets} \\
 \underline{28} \\
 22 \\
 14 \\
 \hline
 84 \\
 84 \\
 \hline
 (0)
 \end{array}$$

Facit 216 rundlets

Reduction of long measure

Quest. I demand how many furlongs, poles, inches, and barley-corns will reach from London to York, it being accounted 151 miles.

ARITHMETIC.

151 miles
8 furlongs in a mile

1208 furlongs
40 poles in a furlong

48320 poles
11 half yards in a pole

4832
4832

531520 half yards
18 inches in a half yard

425216
53152

9567360 inches
3 barley-corns in an inch

28702080 Answer.

Quest. The circumference of the earth (as all other circles are) is divided into 360 degrees, and each degree into 60 minutes, which, upon the superficies of the earth, are equal to 60 miles; now I demand how many miles, furlongs, perches, yards, feet, and barley-corns, will reach round the globe of the earth?

ARITHMETIC.

147

360 degrees
60 minutes or miles in a degree

21600 miles about the earth
8 furlongs in a mile

172800 furlongs about the earth
40 perches in a furlong

6912000 poles or perches about the earth
11 half yards in a perch

6912
6912

2) 76032000 half yards about the earth

(38016000 yards, viz. the half yards divided
3 by 2

114048000 feet about the earth
12 inches in a foot

228096
114048

1368576000 inches about the earth
3 barley corns in an inch

Facit 4105728000 barley corns

and so many will reach round the world, the whole being 21600 miles. So that if any person were to go round, and go 15 miles every day, he would go the whole circumference in 1440 days, which is 3 years 11 months and 15 days.

Reduction of Time.

Quest. In 28 years, 24 weeks, 4 days, 16 hours, 30 minutes, how many minutes?

ARITHMETIC.

Years, weeks, days, hours, minutes,

28—24—4—16—30

52 weeks in a year

60

142

1480 weeks

7

10364 days

24

41462

20729

248752 hours

60

14925150 minutes

Note, That in resolving the last question after the method expressed, there are lost in every year 30 hours; for the year consisteth of 365 days and 6 hours; but by multiplying the year by 52 weeks, which is 364 days, you lose 1 day and 6 hours every year. Wherefore, to find an exact answer, bring the odd weeks, days and hours into hours, and then multiply the year by the number of hours in a year, viz. 8766, and to the product add the hours contained in the odd time, and you have the exact time in hours; which bring into minutes as before. See the last question thus resolved.

	Days. hours.	Weeks. days. hours.
28	365—6	24—4—16
8766	24	7
172	1466	172
172	730	24
197		
228	8766 hours in a year	694
		345
249592 hours		
60		4144

14975520 minutes in 28 years and 4144 hours

So you see, that, according to the method first used to resolve this question, the hours contained in the given time, are 248752; but according to the last, best, or truest method, they are 249592, which exceeds the former by 840 hours.

But for most occasions it will be sufficient to multiply the given years by 365; and to the product add the days in the odd time, if there be any, and then there will be only a loss of 6 hours in every year; which may be supplied by taking a fourth part of the given years, and adding it to the contained days, and you have your desire.

The Golden Rule; or, Rule of Three Direct

IS so called from its extraordinary usefulness, not only in arithmetical questions, but in all parts of the mathematics.

It is also called the rule of three, because there are always three numbers given to find out a fourth: and it is properly called the rule of proportion, because the first number bears such proportion to the second, as the third does to the fourth.

The design of this rule is, to shew how to find a fourth proportional number, by having three given numbers, which is deducible from the sixteenth proposition of the sixth book of Euclid's elements.

The Rule is,

Multiply the second and third numbers together, and divide the product by the first number, and the quotient hence arising is the fourth number sought. Or,

Divide the second number by the first, and multiply the quotient by the third, and the product is the number required: for the fourth number contains the third as often as the second contains the first. And this is called direct proportion.

All questions in this rule of three consist of three numbers, whereof two are always of one kind or denomination. As in this example.

If I give 10s. for 5 yards, what shall I give for 15 yards at the same rate?

Now two of these are of the same kind, that is, the number 5 and 15, which are both yards, which place thus. The number, concerning which the question is asked, must be in the third place.

Now in this question the 15 yards is the number, and the price of which the question requires the value, place it therefore in the third place.

Then seek out the other number of the same kind or denomination, which must be yards also, which in this question is 5; set this in the first place, and then the other number, that is 10s. will consequently claim the second place, and the answer to the question will be always of the same denomination with it, which here is shillings.

Now the question stated according to the foregoing rules stands thus;

If 5 yards cost 10s. what will 15 yards cost?

$$\begin{array}{r}
 15 \\
 \hline
 5 \overline{)150} (30s. \text{ Answer} \\
 \underline{15} \\
 00
 \end{array}$$

Multiply the second number by the third, and divide the product by the first.

Note, That the three numbers are 5, 10, 15.

Proof of the last question.

What shall I pay for 5 yards, when 15 yards are sold for 30 shillings?

If 15 yards cost 30s. what will 5 yards cost?

$$\begin{array}{r}
 5 \\
 \hline
 15 \overline{)150} (10s. \text{ Answer} \\
 \underline{15} \\
 00
 \end{array}$$

What is the interest of 75 pounds at the rate of 8%. per cent. per annum?

The numbers will be stated thus;

L. P.	L. I.	L. P.
100	8	75

In this example there are two numbers that are principal money, and one that is interest; therefore the interest (according to the rule) must stand in the middle, or second place; the principal on which the interest dependeth, viz. 100/. (8% being the interest thereof) must stand in the first place towards the left hand, and the other principal on which the fourth number (which is the number sought for) dependeth, must possess the first place towards the right hand.

By these rules foregoing, you may with ease and certainty perform any operation in direct proportion; and for your further information take the examples following.

Example. If the interest of 100/. for one year be 8%, what is the interest of 75/. for the same time

L. P.	L. I.	L. P.
100	8	75
1100)6100(6%. Anf.		

Example. If 32 rudlets of brandy cost 96/. what will 4 rudlets cost at that rate?

Run.	l.	Run.
32	96	4
	4	
32) 384(12%. Anf.		

64

0 Remains

Example. If 12 bags of cotton wool cost 148 l. what will 17 bags cost?

Bags	/.	Bags	
12	184	17	
	17		
	1288	1	s
	184	260	13 4 answer

$$12 \overline{) 3128} (260 \text{ l.}$$

72
8 pounds remain
20 shillings multiply

$$12 \overline{) 160} (13 \text{ shillings}$$

40

4 shillings remain
12 pence multiply

$$12 \overline{) 48} (4 \text{ pence}$$

0 remains

Note, That as in the last example, when any thing remains that is reducible to a lower denomination, after it is so reduced, it must be divided continually by the first number.

Case.] When any of the three given numbers happen to be of divers denominations,

Rule] You may reduce them into the lowest denomination. And if your first number require to be reduced, your third must be reduced likewise into the same denomination as the first: for the first and third number before you begin your operation, must be always of one name or denomination.

Example. If 17 hogsheads of sugar cost 320 l. 12 s. what will 5 of these hogsheads be worth?

Hhds. l. s. hhds.

17 320 12 5
20

6412 shillings } multiply
5 Hhds. }

210 s. 1 s d q
17) 32060 (18815 (94 5 10 277
.....

150

8

146

0 remains

100

15 shillings remain } multiply
12 pence in a shilling }

30

15

17) 180(10 pence

10 pence remain

4 farthings 1 penny } multiply

17) 40(2 farthings

6 farth. remain to be divided by 17

Note, That when you have multiplied the second and third numbers together, and divided the product by the first, the quotient is of the same denomination as the second number is, after you have reduced it (as in the last example) into its lowest denomination given.

Example. If 4 C 1 qr 24 lb of sugar cost 14 l. what will 18 C cost?

C	qr	lb	/	C
4	1	24	14	18
4				18
42				18
45				18

500 lb of sugar

2016 lb of sugar } multiply
14 l. sterling

8064
2016

1 s d q
5100) 282124 (56 8 11 2 $\frac{40}{309}$
...

32

224 pounds remain } multiply
20 shillings in 1 l.

5100) 44180 (8 shillings

480 shillings rem. } multiply
12 pence in 1 s

960
480

5100) 57160 (11 pence
...

7

260 pence remain } multiply
4 farthings 1 d

5100) 10140 (2 qrs
...
40 farthings remain to be divided
by 500

Note farther, That what farthings remain, to be divided by the common divisor, (as in the last example) because you can reduce them into no lower denomination, you may place them over your divisor, as fractions of a farthing, which shall be explained when we come to treat of vulgar fractions, &c.

Case.] When the first number of the three given, is but an unit, the operation is performed by multiplication only.

Example. If I give 15 s. for a pound of thread, what will 250 lb. cost at that rate?

lb	s	d
1	15	250
		15
		1250
		250

3750s. answer, or 187l. 10s.

Example. At 14l. 10s. 6d. per bag of hops, what cost 55 bags?

Bag	l	s	d	Bags
1	14	10	6	55
			20	
290 shillings				
12				

3486 pence
55 the 3d number } multiply

17430
17430

191730 pence ans. or 798l. 17s. 6d.

Case.] When the third number of the three given (or that towards the right hand) is an unit; such operation is performed by division only; if the number need no reducing.

Example. If 40 pieces of broad cloth cost 590l. what will one piece cost?

Pieces £ Piece

40 590 1
 410)5910(14 $\frac{3}{4}$ l. or 14l. 15s. answer

19

30 pounds remain

If one bushel of rye cost 3s. 6d. what will a last or 10 quarters cost after that rate?

First reduce the 3s 6d into pence, that is 42d and the 10 quarters into bushels, that is 80, and set the question thus:

If 1 bushel cost 42d. what will 80 cost?

80

3360

The first number, or place being 1, will neither multiply nor divide, then bring the 3360d. into shillings by dividing by 12, as followeth.

12)3360(280 shillings

24

96

96

0

210)2810(14l

20

80

80

0

14l.

20

280

12

3360

For the proof of this, and the like questions, reduce the answer into pence, to know whether your work be right, as appears in the work.

If I paid 432l. for 525 quarters of malt, what is the price of 1 quarter after that rate?

Which being stated stands thus ;

If 525 quarters cost 432*l*. what will 1 quarter cost ?

In this question you cannot multiply the second number by the third, because the third number (or place) is but one.

Therefore to perform this question with ease, reduce 432*l*. into farthings by reduction, which makes 414720 farthings to be divided, which divide by 525, the quarters of malt, and the quotient, the answer is 789 farthings; the remainder after the division is ended are but the parts of a farthing.

Lastly, The 789 farthings being reduced are 16*s*. 5*½**d*. Therefore, if 525 quarters of malt (or tods of wool or goods) be sold for 432*l*. one quarter will cost 16*s*. 5*½**d*. after that rate. Or, which is better, reduce the 432*l*. into shillings, and it gives 8640, which divide by 525, and the quotient is 16, and the remainder 240, which multiply by 12 the product is 2880, which divide by 525, the quotient is 5 pence, and the remainder 255; that multiplied by 4, and the product 1020 divided as before, gives 1 farthing. and $\frac{425}{525}$ parts of another farthing.

If a grocer bought 5*½* C. weight of nutmegs, which cost him 163*l*. 13*s*. 8*d*. how may he sell 1 pound weight without gain or loss ?

Reduce the money into pence, it makes 39284*d*. for the dividend, and 5*½* C. weight into pound weights by reduction, makes 644 pound weight for the divisor; then divide the 39284 by 644, and the quotient gives 61 pence, the price of one pound, viz. 5*s*. 1*d*.

Note, That what sum of money you desire to gain, add it to the price ; and work as above, to know what you get by every single pound.

Suppose the yearly rent of 20*l*. belonging to 7 landlords.

Reduce the 20*l*. into farthings, and they are 19200, which divide by 7, the quotient gives 2742*½* farthings for each landlord, from which you may subtract the taxes.

By the same rule you may draw a comparison of debts ; for if a man owe to several creditors, as suppose comes to in all 35*l*. 16*s*. reduce it into farthings, and divide it by the number of pounds owing, &c. As,

Suppose a man leaveth 13*l*. To the first 3 12 2 2
 to pay his debts, and he owes —Second 4 06 8 0
 one man 5*l* the second 6*l* and —Third 5 01 1 2
 the third 7*l* which makes 18*l*
 what is each man's share? 13 00 0 0

If 28 quarters of barley cost 30*l* 10*s* 6*d*, tell me what
 84 quarters come to at that rate?

28 qrs cost 30*l* 10*s* 6*d*, what will 84 qrs cost?

	20	12	
Shillings	610	56	28)615384 (21978 pence
	12		210 18311—6
	1226	55	
	610	28	L 91—11—6
		273	
Pence 7326		252	
84			
		218	
29304		196	
58608			
		224	
Sum 615384		224	
		(0)	

84 qrs comes to 91*l* 11*s* 6*d*
 20

For a proof I reduce the }
 91*l* 11*s* 6*d* into pence }

1831
 12
 3668
 1831
 21978

How many yards of cloth shall I buy for 21*l* 10*s* 1*d*?
 when $3\frac{1}{2}$ are sold for 2*l* 14*s* 3*d*?

First, reduce the 2*l* 14*s* 3*d* into farthings, which
 make 2004, for the first number; next the 3 yards and

an half into quarters, which make 14 for the second number, and the 21/ 10s 1½d and it makes 20646 farthings; then multiply that by 14 and the product is 289044, to be divided by 2604, and the quotient gives 111 quarters of yards, to divide by 4, (the quarters in a yard) and the quotient is 27 yards ¾, viz. 3 quarters, answer.

Thus stated being reduced.

Farthings	Quarters	Farthings
2604	14	20646

If one pound of iron cost 3s 7d what will

7 C 3 qrs 17 lb cost?

4

31 qrs of an hundred

28 lbs in ¾ of an C

—take in 17 lb

255

63

Pounds 885 in 7 C 3 qrs 17 lb

14 farthings in ¾

3540

885

4)12390 farthings answer

12)3097½

210)2518 1

Answer L 12 18 1½

Note, That this example may serve for a rule to reduce hundreds, quarters, and pounds into pounds; but most tradesmen set the weights in short, thus, 7—3—17 instead of setting them as above 7C 3 qrs 17lb

Besides this way of proof, of reducing the total to farthings again, is most necessary for young learners, in most of the questions in the rule of three.

The Indirect Rule of Three.

IN the indirect rule of three, the numbers are in reciprocal proportion, that is, the fourth number to be found, is to bear the same ratio to the second as the third does to the first, but in an inverted order; that is, the greater the third term is in respect to the first, the less must the fourth be in respect to the second.

This rule differs in its operation, from the direct, in that, after the question is stated, and the numbers of the statings prepared (as in the direct rule) your first and second must be multiplied together, and your third number be your divisor. The quotient, as before, will be the answer.

EXAMPLES

Ex. 1. What number of men must be employed to finish in 12 days, what 43 men would be 35 days about?

$$\begin{array}{r}
 \begin{array}{ccc}
 \text{days} & \text{men} & \text{days} \\
 35 & \text{---} & 43 & \text{---} & 12 \\
 43 & & & & \\
 \hline
 105 & & & & \\
 140 & & & & \\
 \hline
 12 \overline{)1505} & & & &
 \end{array}
 \end{array}$$

Answer, 125 men

Ex. 2. How many yards of stuff 3 qrs wide, will hang a room which requires 420 yards of 5 qrs wide?

$$\begin{array}{r}
 \begin{array}{ccc}
 \text{qrs} & \text{yds} & \text{qrs} \\
 5 & 420 & 3 \\
 & 5 & \\
 \hline
 3 \overline{)2100} & &
 \end{array}
 \end{array}$$

Answer 700

The reason of this operation will appear plain (after what has been said in the direct rule) by considering the last example. Now it is clear, that if of the stuff, being 5 quarters wide, there are 420 yards required, then were the stuff but 1 quarter wide, 5 times 420 yards, viz. 2100 yards must be allowed; consequently, if the stuff be 3 quarters wide, one third part of those yards will be sufficient: therefore 2100 divided by 3, will give the true answer required, viz. 700 yards.

To know whether a question belongs to the direct or indirect rule of three.

Observe, If the third number, being more than the first number requires more, or, being less, requires less, it is direct; but if the third number, being more, requires less, or being less, requires more, it is indirect.

Or, without any regard to the distinction of direct and indirect; if more is required, let the lesser of the two extremes be the divisor, if less the greater.

More questions in the indirect rule of three,

If I lend A 136 l for 3 months, how long must I keep 1 of his, to requite myself?

Answer, 9 months, 2 weeks, 6 days.

If 46 clerks in 32 days finish a piece of writing, in what time would 55 clerks accomplish the same?

Answer, 26 days, 9 hours, 9 minutes.

A garrison, consisting of 1539 men, being besieged, with provision only for 12 days; but it being necessary they should hold out three weeks, how many men must be sent out?

Answer, 660 men.

The double Rule of Three.

Questions in this rule have five numbers proposed and are frequently answered by two statings, tho' they may be performed by one as shall be shewn hereafter.

Examples.

Ex. 1. The carriage of 32 hundred weight 56 miles comes to 12s. After the same rate, what must I pay to have 78 hundred carried 94 miles?

$$\begin{array}{rcl}
 \text{C} & & \text{C} \\
 \text{1st If } 32 & \text{---} & 12 & \text{---} & 78 \\
 & & 12 & & \\
 & & \text{---} & & \text{s} \quad \text{d} \\
 & & 32)936(29 & & 3 \text{ facit} \\
 & & 64 & & \\
 & & \text{---} & &
 \end{array}$$

$$\begin{array}{rcl}
 \text{Miles} & \text{s} & \text{d} \quad \text{Miles} \\
 \text{Then, If } 56 & 29 & 3 \quad 94 \\
 & 12 & \\
 & \text{---} & \\
 & 351 & \\
 & 94 & \\
 & \text{---} & \\
 & 1404 & \\
 & 3159 & \\
 & \text{---} & \\
 & 56)32994(589 & \\
 & 280 & \\
 & \text{---} & \\
 & 499 & \\
 & 448 & \\
 & \text{---} & \\
 & 514 & \\
 & 504 & \\
 & \text{---} & \\
 & 10 &
 \end{array}$$

$$\begin{array}{r}
 296 \\
 288 \\
 \text{---}
 \end{array}$$

$$\begin{array}{r}
 8 \\
 12 \\
 \text{---}
 \end{array}$$

$$\begin{array}{r}
 32)96(3 \\
 96 \\
 \text{---} \\
 0
 \end{array}$$

$$12)598(1$$

$$210)419$$

Facit 2l. 9s. 1d.

Note, The solution had been the same, if the miles had been made first and third numbers of the first stating; and the C. weights the first and third numbers of the last.

Note also, This example may be done by one stating, thus :

C	s	d	
If 32	12	78	
56 miles		94 miles	
192		312	
160		702	
1792		7332	
		12	
	s	d	
1792	8768	4(49	1
	7168		or
	l	s	d
	16304	2	9
	16428		1
	176		
	12		
1792	2112	(1	
	1792		
	320		

Ex. 2. How many men must be employed to reap 420 acres in 17 day, if there were required 37 men to reap 54 acres in 5 days ?

ARITHMETIC.

Acres men acres
First, If 54 ——— 37 ——— 420

37

2940

1260

Days men days
Then, If 5 ——— 287 ——— 17 54)15540(287

108

17)1435(84
136

474

432

• 75
68

420

378

Ans. 84 men • 7

• 42

Note, If you would work such questions of the double Rule of Three as have one of their proportions indirect, by one stating; you must multiply the third number of your stating by that number you would otherwise have placed under your first; and your first number by that you would have placed under the third; as in the following example.

Example.

Acres men acres
If 54 ——— 37 ——— 420

* 17

5

The number of days which
have relation to the 54 acres

378

2100

54

37

918

14700

6300

* The number of days 918)77700(84 answer as before
which have relation to 7344
420 acres • 4260
3672

• 588

Of Exchange.

HAVING explained the nature of the Rule of Thrée, and the manner of resolving questions therein, I am naturally led to treat of its particular use in the exchange of coins.

In the exchange of coins, it is necessary that the par or value of the money in each place be exactly known: for the word par signifies to equalize the money of exchange from one place with that of another place. As when I take up so much money per exchange in one place, to pay the just value thereof in another kind of money in another place, without having respect to the price current of exchange for the same, but only to what the money does currently pass for in each place. From whence may be easily found out the profit and loss of all money drawn and remitted by exchange. But this par being grounded principally upon the current value of coin, the plenty and scarcity thereof, the rising and falling, inhancement and debasing of the same, it must necessarily follow, that the value of coin is subject unto change. An example whereof you have in France, where their coin has been changed, inhanced and lowered several times in a few years; and in the year 1720, the French crown, which was sixty sous or three livres, is now raised to seventy five sous, or three livres, fifteen sous.

The denomination in which England, and the following places exchange with other are, viz.

The exchange of monies from London to Antwerp, Amsterdam, Hamburgh, Lisle, Middleburgh, and other parts of Flanders and Holland, is valued on the pound sterling of 20 shillings: that is, to pay after the rate of so many shillings and pence Flemish, for every pound sterling.

The exchange from London to Paris, Roan, and most parts of France, is valued on the French crown at 54d. that is to pay so many pence, or so many shillings and pence sterling, for the French crown.

The exchange from London to Venice is made on the ducat at 52d. sterling, to pay so many pence and parts of a penny sterling for every ducat.

The exchange from London to Leghorn, Genoa, Calais, Madrid, and other parts of Spain, is made on the dollar or piece of eight, at 54d. sterling, that is, to pay so many pence or parts of a penny sterling for every dollar.

The par at Antwerp, Amsterdam, Hamburg, Lisle, Middleburgh, and other parts of Flanders, with one pound sterling, is thirty three shillings four pence Flemish, for a pound sterling: which thirty three shillings four pence do make 10 guilders at two shillings sterling the guilder, or 10 livres Turnois.

The par at Paris, Roan, and other ports of France has been reckoned sometimes at 71 sous the crown of 3 livres Turnois, generally at 60 sous the crown of 3 livres, every livre valued at one shilling sixpence sterling, the crown valued at 4s. 6d. sterling.

The par at Leghorn, Madrid, Calais, Genoa, is at 54 pence sterling for the dollar or piece of eight.

The par at Venice with our sterling money is at 6 livres, 4 sous of Venice per ducat, or 51 pence sterling, sometimes 52 pence.

The Hamburg par is sometimes reckoned at 4 rix dollars and a half, which makes 32 shillings Flemish for 20 shillings sterling.

The par at Lisbon is at 6s. 8½d on the milrea or 1000 reas.

The par at Oporto is the same as that at Lisbon.

The value of the most usual coins with which England does chiefly exchange are, viz.

	Sterling money.				
					s
Holland and Flanders	1 stiver is	—	—	—	0—1
	6 stivers of 1s. Flemish is	—	—	—	0—7
	1 Flemish shilling	—	—	—	0—8
	20 stivers is 1 guilder, or	—	—	—	2—0
	6 guilders 1s. Flemish, 20s. is	—	—	—	12—0
	33s. 4d. Flemish is	—	—	—	20—0
	1 Zealand common dollar is	—	—	—	3—0
	1 Duccatoon	—	—	—	5—6
	1 specie dollar	—	—	—	5—0

Sterling money.

France	{				s d.	
		12 deniers, or 1 soluz is	—	—	0	3 $\frac{1}{2}$
		20 soluz or livre is	—	—	1	6
		3 livres, or a French crown	—	—	4	6

Spainish money	{					
		13 $\frac{7}{100}$ malvadees	—	—	0	6 $\frac{1}{2}$
		372 malvadees, or 1 royal	—	—	0	6 $\frac{1}{2}$
		7 $\frac{2}{17}$ royals is 1 ducat	—	—	4	4
		8 royal piece of copper	—	—	4	6
		1 royal copper	—	—	0	0
		17 $\frac{1}{2}$ ditto copper is 1 piece of eight, or	—	—	4	6

Portug.	{					
		12 $\frac{1}{2}$ reas of Portugal	—	—	0	1
		1 milrea, or 1000 reas	—	—	6	8 $\frac{1}{2}$
		1 testoon is	—	—	1	3

Italy	{					
		1 livre at Leghorn is	—	—	0	9
		1 crown current at Florence is	—	—	5	3
		1 ducat du banco at Venice	—	—	4	4
		1 St. Mark	—	—	2	10
		1 Palermo florin is	—	—	2	6

Germany	{					
		1 rix dollar of the empire	—	—	4	5 $\frac{1}{2}$
		4 $\frac{1}{2}$ rix dollars makes 32 Flem. }	—	—	20	0
		at Hamburgh, &c.	—	—		
		1 guilder of Noremburg	—	—	7	1

A merchant in London remits to Rotterdam 375l. 10s. sterling, at 34s. 8d. for 20s. sterling, how many guilders Flemish must be paid at Rotterdam, and what gained per exchange?

s.	s.	d.	
20	35	8	Flemish
	12		
	416		

l.	s.	d.	
what 375	10	0	
	20		
	7510		
	416		

45060
7510
30040

Guineas, stivers.

210	31241610

Answ. 3905—4

2)	156208

210	781014

3905

To find the gain or loss in one pound, subtract 33 s. 4d. out of 34s. 8d. the course of exchange, the difference is 1s. 4d. Flemish per pound, and so much gain is the course of exchange in our favour.

If the course of exchange be under par, it must by parity of reason become a loss to us, and then the course of exchange is to our prejudice.

The like to be observed for the coins exchanged in all other countries.

I will give but one example of loss by exchange, by which, with the foregoing example of gain, the ingenious may with ease, travel through the general course of exchange with all countries.

A merchant in London remits a bill of exchange to Amsterdam for 297l. 15s. sterling. at 31 s. 3d. Flemish for 20s. sterling. I demand how much Flemish money was paid for the said bill at Amsterdam, and what is lost per pound by exchange?

s	s	d		l	s
20	31	3	Flemish.	297	15
			Guild.		
			shill.		

Answer, 2791—8 paid, and 2s. 1d. Flemish per pound lost by the exchange.

Arithmetical Progression

IS when a rank or series of numbers differ orderly from one another, by some common number.

To find the sum of any arithmetical progression, add the first and last numbers together, and multiply that sum by half the number of places, and that product is the sum. But if the number of places be odd, multiply the said number of places by half of the first and last added, and that product is the sum.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

What the sum ?

16 Last

1 First

17 Sum

8 Half of the number of places

136 Sum of the whole

Suppose a man hireth a room for a year, and agreeth to pay the first week 5 *d.* the second week 9*d.* and for the third week 13*d.* so paying every week 4*d.* more until 52 weeks or a year is finished, I demand what the rent will come to ?

Answer. 23*l.* 3*s.* 8 *d.*

Here you are to consider that the common increasing number is 4*d.* so that the last week must amount to 51 times 4 added to the pay of the first week, which is 5*d.* then will the last week come to 209 pence, then work as in the example.

	51	12)5564(463
	4	48
Product	204	76
	5	72
Added	209 the last week	44
	5 the first week	36
Added	214	8d
	26 half weeks in the year	
		210)4613(23l. 3s. 8d.
	1284	
	428	
Pence	5564	

Geometrical Progression.

Suppose one fold 12 ells of cloth, to receive for the first ell 1d. the second 2d. the third 4d. and so on doubling what is paid for the 12 ells?

0, 1, 2, 3, 4, 5, 6.
1, 2, 4, 8, 16, 32, 64
32
128
192
2084

Answer 4097 Pence

Note, That if this question had been for a farthing button, or the like, the answer would have been far things.

Suppose one sold a horse having 4 shoes, and every shoe 6 nails, to receive for the first nail 1 farthing, the second nail 2 farthings, the third nail a penny, and

ARITHMETIC.

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doubling, how much is paid for the last nail, and the price of the horse?

Answer 174761 5s

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096
4096

12288

18432

81920

8388608

2

Farthings 16777216

Or if this question had been of a coat sold at a barley corn a button, and so doubling to 24 buttons (accounting 900 corns to a pint) I divide the 16777216 by the 900 corns, the quotient gives about 18641 pints, which divide by 64 (the pints in a bushel) the quotient gives about 291 bushels, or about 36 quarters of barley for the coat.

The Rule of Fellowship or Company

MAY fitly be divided into gain, loss, and time.

A general Rule.

As general stock to general profit bears;

So each man's stock in general profit shares.

That is to say,

Every man's particular stock being added together, the total must be the first number in the rule of three, the gains the second, and every man's particular stock the third; as,

Suppose two booksellers in company, Y laid in 20%. laid in 40%. whereby was gained 50%. what is each man's part of the gain?

ARITHMETIC.

If 60l gain 50l what will 20l gain?

$$\begin{array}{r} \text{Y } 20 \\ \text{Z } 40 \\ \hline 60 \end{array}$$

$$\begin{array}{r} 20 \\ \hline 60 \overline{) 1000} (16 \text{ l } 13 \text{ s } 4 \text{ d} \\ 6 \\ \hline 40 \\ 36 \\ \hline 4 \end{array}$$

If 60l gain 50l what will 40l gain?

$$\begin{array}{r} 40 \\ \hline 60 \overline{) 2000} (33 \text{ l } 6 \text{ s } 8 \text{ d} \\ 18 \\ \hline 20 \\ 18 \\ \hline 2 \end{array}$$

$$\begin{array}{r} \text{l s d} \\ 33 \text{ } 06 \text{ } 8 \\ 16 \text{ } 13 \text{ } 4 \\ \hline \end{array}$$

Proof 50 00 0

Suppose two merchants make a stock, B laid in 45l. and C laid in 68l. whereby they gained 32l. how must the gain be divided?

If 113l gain 32l what will 45l gain?

$$\begin{array}{r} \text{B } 45 \\ \text{C } 68 \\ \hline 113 \end{array}$$

$$\begin{array}{r} 45 \\ \hline 160 \\ 128 \\ \hline 113 \overline{) 1440} (12 \text{ l } \frac{84}{113} \text{ B's part} \\ 113 \\ \hline 310 \\ 226 \\ \hline 84 \end{array}$$

ARITHMETIC.

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If 113/ gain 32/ what will 68/ gain?

$$\begin{array}{r}
 68 \\
 \hline
 256 \\
 192 \\
 \hline
 213)2176(19/ \frac{32}{113} \text{ C's part} \\
 113 \\
 \hline
 1046 \\
 1017 \\
 \hline
 29
 \end{array}$$

The 29 of the fraction multiplied by 240, (the pence in 20s) and the product divided by 113, the quotient tells the pence.

Suppose three merchants F, G, and C, join their monies to make a stock of 25000/ of which F laid in 10000/ G 8000/ and C 7000/ with this (after a certain time of trading) they gained 7500/, how muſt this be parted?

If 25000/ gain 7500/, what will 10000/ gain?

$$\begin{array}{r}
 10000 \\
 \hline
 251000(75000)1000(3000/ \text{ F's part} \\
 75 \\
 \hline
 00000
 \end{array}$$

If 25000/ gain 7500/, what will 8000/ gain?

$$\begin{array}{r}
 8000 \\
 \hline
 251000(60000)(2400/ \text{ G's part} \\
 50 \\
 \hline
 100 \\
 100 \\
 \hline
 0
 \end{array}$$

ARITHMETIC.

If 25000/ gain 7500/, what will 7000/ gain?

$$\begin{array}{r}
 7000 \\
 \hline
 25 \overline{) 1000} \quad 52500 \overline{) 1000} \quad (2100/ \text{ C's part} \\
 \underline{50} \qquad \qquad \qquad \text{F } 3000/ \\
 25 \qquad \qquad \qquad \text{G } 2400/ \\
 \underline{25} \qquad \qquad \qquad \text{C } 2100/ \quad \left. \vphantom{\begin{array}{l} \text{F } 3000/ \\ \text{G } 2400/ \\ \text{C } 2100/ \end{array}} \right\} \text{Stocks added} \\
 0 \qquad \qquad \qquad \underline{\hspace{1cm}} \\
 \qquad \qquad \qquad 7500
 \end{array}$$

The Rule of Fellowship with Time.

The Rule.

EVERY man's stock must be multiplied by his time, and the total of those products added together is the first number, the gain or loss the second number, and the product of every man's particular stock and time the third number.

Suppose two merchants in company, A laid in 100/ for 4 months; B put in 136/ for 3 months, and they gained 50/, what is each man's part?

A put in 100/ } multiplied by { 4 } give { 400
 B put in 136/ } { 3 } { 408

If 808/ gain 50/, what will 400/ gain?

$$\begin{array}{r}
 400 \\
 \hline
 808 \overline{) 20000} \quad (24/ \frac{608}{808} \text{ A's part} \\
 \underline{1616} \\
 3840 \\
 \underline{3232} \\
 608
 \end{array}$$

ARITHMETIC.

175

If 808/ gain 50/, what will 408 gain?

$$\begin{array}{r}
 408 \\
 \hline
 400 \\
 2000 \\
 \hline
 808)20400(25/\frac{2000}{808} \text{ B's part} \\
 1616 \\
 \hline
 4240 \\
 4040 \\
 \hline
 200
 \end{array}$$

Suppose three farmers, as A, B and C hold a pasture, for which they pay 45/ per annum, A hath 24 oxen 32 days, B hath 12 there 48 days, and C fed 16 oxen there 49 days, what must every man pay of the rent?

Oxen		Days		
A 24	} multiplied by	32	} give	768
B 12		48		576
C 16		49		384
				<u>1728</u>

RULES of PRACTICE.

The even parts

Of a pound

s	d	l
10	0	$\frac{1}{2}$
6	8	$\frac{1}{4}$
5	0	$\frac{3}{8}$
4	0	$\frac{1}{2}$
3	4	$\frac{3}{8}$
2	6	$\frac{1}{4}$
2	0	$\frac{1}{5}$
1	8	$\frac{1}{5}$

Of a shill.

d	s
6	$\frac{1}{2}$
4	$\frac{1}{3}$
3	$\frac{1}{4}$
2	$\frac{1}{5}$
$1\frac{1}{2}$	$\frac{1}{8}$
1	$\frac{1}{2}$

Of a hund

lb	C
56	$\frac{1}{2}$
84	$\frac{1}{3}$
28	$\frac{1}{4}$
14	$\frac{1}{8}$
16	$\frac{1}{5}$
8	$\frac{1}{10}$
7	$\frac{1}{16}$

1. When the given price is pence, take your parts in shillings, the product divided by 20 gives the answer in pounds

Or, You may bring it into pounds, at once, by cutting off the last figure, and by considering that 240 pence is 1 pound, whereof 8d is $\frac{1}{3}$, 6d is $\frac{1}{4}$, 4d is $\frac{1}{6}$, 3d is $\frac{1}{8}$, 2d is $\frac{1}{12}$.

Examples.

254 lb. of tobacco at 1d	716 ells at 3d
$\frac{1}{2}$ 21 2d	d. — s d
	$3\frac{1}{8}$ 18 19 0 facit
$\frac{1}{4}$ 1 1 2 facit	215 lb at 4d
254 lb. at 2d	d. — s d
	$4\frac{1}{2}$ 1 3 11 8 facit
$\frac{1}{8}$ 42 4	d. — s d
$\frac{1}{16}$ 2 2 4 facit	$6\frac{1}{4}$ 643 gall. at 6d
	— s d
	1 16 1 6 facit.

The three last examples are brought into pounds at one operation, after which manner any sum of practice may be readily cast up.

Here you may see that 254 pounds of tobacco at 1d a pound, divided by the $\frac{1}{2}$, gives 21s 2d, and that divided by 20 (by cutting off the last figure, and taking $\frac{1}{2}$ of it) gives 1/ 1s 2d, the price of 254 pounds of tobacco: and for 2d the pound take the $\frac{1}{6}$, because 2d is the $\frac{1}{6}$ part of a shilling, and for 3d a pound take $\frac{1}{4}$, and so for the others at 4d and 6d.

2. When the given price is such pence as are no even part of a shilling, take first the greatest even parts of a shilling, and then part of that part: add them together, and divide the product by 20, or cut off the last figure, and take $\frac{1}{2}$.

d 2121 ells at 5 d	748 lb at 7 d
4 $\frac{1}{2}$ 707 s	6 d is $\frac{1}{2}$ or 374
1 $\frac{1}{2}$ 176—9	of which 1d, or $\frac{1}{8}$ is 62—4
5 883—9	436
44—3—9 Facit	1 21—16—4

d 254 lb of tobacco at 9 d and 10 $\frac{1}{4}$ a lb	d 254 at 10 $\frac{1}{4}$ d
6 $\frac{1}{2}$ 127	6 $\frac{1}{2}$ 127 shillings in 254 6 d
3 $\frac{1}{2}$ 63—6	4 $\frac{1}{2}$ 84—8 in 254 groats
9 $\frac{1}{2}$ 190—6	1 $\frac{1}{2}$ 10—7 in 254 halfpence
9—10—6 Facit	4 $\frac{1}{2}$ 5—3 $\frac{1}{2}$ in 254 farthings
	2217—6 $\frac{1}{2}$
	11—7—6 $\frac{1}{2}$ Facit

Demonstration. In 254 pounds of tobacco at 10 $\frac{1}{4}$ 1 a pound, there must be 254 sixpences, which is 127 shillings, and 254 groats, which is 84s 8d and 254 halfpence, which is 10s 7d and 254 farthings, which is 5s 3 $\frac{1}{2}$ d. all these added together, make 227s 6 $\frac{1}{2}$ d, which divided by 20, gives the answer 11l 7s 6 $\frac{1}{2}$ d.

d 614 lb at 11 d	563 lb at 11 $\frac{1}{2}$ d
6 $\frac{1}{2}$ 307	6 $\frac{1}{2}$ 281—6d
4 $\frac{1}{2}$ 204—8d	4 $\frac{1}{2}$ 187—8
1 $\frac{1}{2}$ 51—2	1 $\frac{1}{2}$ 70—4 $\frac{1}{2}$
11 5612—10	5319—6 $\frac{1}{2}$
28—2—10 fa.	76—19—6 $\frac{1}{2}$ Facit

3. If the given price be any number of pence above 1s and less than 2s. take the aliquot parts in pence, (as in the last precedent) to which add the given quantity for the 1s, and proceed as before.

EXAMPLES.¹

$\frac{1}{2}$ 254 lb at 15 d	254 lb at 17 d
d 63—6	$\frac{1}{2}$ 84—8
3117—6	$\frac{1}{2}$ 21—2
15—17—6 fa.	3519—10
	17—19—10 Fa.
$\frac{1}{2}$ 264 yds at 18 d	295 gall. at 19 d
$\frac{1}{2}$ 132	$\frac{1}{2}$ 147—6
3916	$\frac{1}{2}$ 24—7
19—16—0 Facit	4617—I
	23—7—I facit
$\frac{1}{2}$ 672 lb at $22\frac{3}{4}$ d	456 ells at $25\frac{1}{4}$ d
$\frac{1}{2}$ 336	$\frac{1}{2}$ 228
$\frac{1}{2}$ 224	$\frac{1}{2}$ 152
$\frac{1}{2}$ 42	$\frac{1}{2}$ 38
12714	$\frac{1}{2}$ 9—6
63—14—0 facit	8813—6
	44—3—6 facit

In 672 lb at $22\frac{3}{4}$ d a lb I take $\frac{1}{2}$ for 6 d, the $\frac{1}{2}$ for 1 d, and the $\frac{1}{8}$ for the $\frac{3}{4}$, because $\frac{3}{4}$ is the $\frac{3}{8}$ of 6 d, by which you will find that in 672 sixpences there is 336 shillings, and in 672 groats there is 224 shillings, and in 672 three farthings there is 42 shillings.

4. If the given price be such shillings as are an even part of a pound sterling, take such a part of the given quantity, and the quotient is pounds.

Els s d	Yards
133 at 1—8	271 at 2s
$\frac{1}{2}$ 36—I—8 facit	$\frac{1}{2}$ 27—2—0 facit
674 at 2s 6 d	495 at 3s 6d
$\frac{1}{2}$ 84—5—0 facit	$\frac{1}{2}$ 82—10—0 facit

Crowns	Dollars
457 at 5s	612 at 4s
$\frac{1}{2}$ 114 5 0 facit	$\frac{1}{2}$ 122 8 0 facit
295 at 6s 8d	372 at 10s
$\frac{1}{2}$ 98 6 8 facit	$\frac{1}{2}$ 186 0 0 facit

In this first example of 433 ells at 1s 8d, I take the $\frac{1}{2}$ because 1s 8d is the $\frac{1}{2}$ of 1l, and say, 12 in 43 is 3 times, rest 7, which makes the 3 to be 73, then 12 in 73 is 6 times, rest 1, which is 1s 8d, which I put down as above.

5. If the given pence be such shillings and pence as are no even parts of a pound, multiply the given quantity by the number of shillings, and take the aliquot parts of pence, and proceed according to the second rule.

Ells	Ells
375 at 8s 6d	493 at 15s 10d
8	15
$\frac{1}{2}$ 3000	2465
187 6	493
31018 6	$\frac{1}{2}$ 246 6d
159 7 6 fa.	$\frac{1}{2}$ 164 4d
	78015 10
	390 5 10 facit
C s d	C s d
295 at 12 9	214 at 7 11
12	7
$\frac{1}{2}$ 3540	1498
47 6	107
$\frac{1}{2}$ 73 9	$\frac{1}{2}$ 53 6
37611 3	$\frac{1}{2}$ 35 8
18811 3 fac.	16914 2
	84 14 2 facit

6. If your given price be any number of pounds, shillings and pence; reduce first your pounds and shillings into shillings, and proceed according to the last rule.

Pieces	l	s	d	Tuns	l	s	d
754 at	4	3	7	176 at	7	10	
83	20			67	20		
2262	83			1232	67		
6032				1056			
$\frac{1}{2}$ 377				11792			
$\frac{1}{8}$ 62	10			88			
630211	10			58	8		
3151	1	10	facit	119318	8		
				596	18	8	facit

7. If your given price be any number of pounds, and exceeding five pounds, then multiply your given quantity by the number of pounds, and take your aliquot parts in shillings and pence, viz.

C	l	s	d	Hhds	l	s	d
74 at	11	12	6	394 at	16	16	3
11				16			
s. 314				2364 } at 16l			
$10\frac{1}{2}$ 36	d			394 } at 16l			
$2\frac{1}{4}$ 9	5	0		197 at 10s			
l. 860	5	0	facit	$\frac{1}{2}$ 98	10	at 5	
				$\frac{1}{4}$ 19	14	at 1	
				$\frac{1}{8}$ 4	18	6 at 3d	
				l. 6624	2	6	facit

8. If the given quantity be any number of C. qrs. or pounds; or tuns. C. qrs. and pounds, &c. work as before where no part is, and take your aliquot parts in quarters and pounds. In C. qrs. and pounds, and add them to your first. An example or two will make this plain.

C	s	d	C	s	d
75 $\frac{1}{2}$	at	22 6	63 $\frac{1}{4}$	at	12 10
22			12 mul.		
		11 3			
150			756s		
150			31 6d		
$\frac{1}{2}$ 37 6			21		
11 3			9 7 $\frac{1}{2}$ C		
169	18	9	81	18	1 Sum
84	18	9 facit.	40	18	1 $\frac{1}{2}$

In the example of 63 C $\frac{1}{4}$ at 12s 10d the C weight, I multiply the C by 12s, and take the parts in pence for the odd pence; then for the $\frac{1}{4}$ of C I first take the $\frac{1}{2}$ of the price of a C, and that makes 6s 5d, the price of $\frac{1}{2}$ a C, and then I take the half of that, which gives 3s 2 $\frac{1}{2}$ d the prime of a qr of a C. Add them together, it gives the price of $\frac{1}{4}$ of a C which is 9s 7 $\frac{1}{2}$ and must be added to your first work. Two or three examples more will make it familiar and easy to any capacity.

84 C 3 qrs 11 lb at	—	—	—	21s	10d
21					
84					
168					
42					
28					
18	6				
185	12	6			
92	12	6			

	$\frac{1}{2}$	10	11	
lb $\frac{1}{4}$	5	5	$\frac{1}{2}$	
7 $\frac{1}{4}$	1	4	$\frac{1}{4}$	
4 $\frac{1}{2}$	0	9	$\frac{1}{4}$	
	18	6		

The price of 3
qrs 11 lb

Tun C qr lb l s d
 12 14 3 14 at 15 17 06 a tun
 12

190	10	00
$\frac{1}{2}$ 7	18	9
$\frac{1}{2}$ 3	3	6
$\frac{1}{8}$ 0	7	$11\frac{1}{4}$
$\frac{1}{2}$ 0	3	$11\frac{1}{2}$
$\frac{1}{2}$ 0	1	$11\frac{1}{4}$
202	06	$01\frac{1}{2}$

The Order of deducting Tare and Tret.

Gross is the weight of a commodity, with the hoghead, chest, box, or whatever else contains it.

Tare is the allowance given for the weight of the cask, hoghead, &c.

Tret is an allowance of 4 pounds, in 104 pounds, for waste and dust on some sort of goods.

Example 11 hhds. qt. 45 3 15 gross, tare 14 per 112
 14 $\frac{1}{8}$ ————— how many lb neat?
 5 2 26 tare.

Answer 4 0 7

1. Here 14 pounds tare being $\frac{1}{8}$ of 112 pounds, take $\frac{1}{8}$ of the gross, the quotient gives the whole tare, which subtract from the gross, gives the neat weight.

The operation is performed thus: divide the gross by 8, say 8 in 45, 5 times, and 5 C remains, which is 20 qrs, and 3 is 23; then 8 in 23, 2 times, 7 qrs remain, which turned into pounds by 28, and added to the 15 pounds, make 211 pounds, then 8 in 211 is 26 times. So the tare is 5 C, 2 qrs, 26 pounds.

	C	qr	lb	s	d
Example	40	0	17	Neat at 22	6
	22			lb	
	80			14 $\frac{1}{8}$	2—9— $\frac{1}{2}$
	80			2 $\frac{1}{7}$	0—4— $\frac{1}{4}$
	20			1 $\frac{1}{2}$	0—2— $\frac{1}{4}$
	0—3—4 $\frac{1}{4}$			facit 3—4— $\frac{1}{4}$	
	9010—3—4 $\frac{1}{4}$			price of 17lb	
	1. 45—3—4 $\frac{1}{4}$				

If the tare be 16 pounds in 112 pounds, take $\frac{1}{7}$ of the gross, and work as before.

If 18 pounds per 112 pounds, for tare, take the aliquot parts, viz.

For 16 lb take the $\frac{1}{7}$ } Add the tare of 16, and the
 For 2 take the $\frac{1}{8}$ } tare of 2 together, the total
 subtract from the gross, and work as before.

lb	lb	{	lb	
If 20 in 112 for tare		for 16 take $\frac{1}{7}$	lb	
		for 4 take $\frac{1}{4}$ of 16		

2. When an allowance is made for tret, then (after the tare is subtracted from the gross) the remainder is called futtle, which divide by 26, (because 4 pounds is the 26th part of 104, the allowance always given for tret) the quotient gives the tret, which subtracted from the futtle, gives the neat weight.

Example. C qr lb lb lb lb
 45—3—15 gr. tare 16 in 112 tret 4 in 104
 16 $\frac{1}{2}$ 6—2—06 tare

39—1—09 futtle
 4

4)104
 26

157
 28

1265
 314

4405 pounds futtle
 169 tret

26)4405
 180
 169 245
 11

4236 neat pounds at 6d

6 $\frac{1}{2}$ 2118s

105—18—0 facit.

3. If the allowance for tare be 8 pounds, 10 pounds, 12 pounds, in 112, or any other lesser number, whether an aliquot part of 112 or not, in such cases, divide the gross into two parts by 2, which will make it half hundreds, then say, 8 is $\frac{2}{7}$ of $\frac{1}{2}$ C. or of 12 pounds in 112 pounds.

Rule. From $\frac{2}{7}$ of the gross, take $\frac{2}{7}$ of that 8th for tare at 12 per cent. When you have found tare subtract it always out of the whole gross.

I might enumerate examples, but these being sufficient to instruct any ordinary capacity in tare and tret,

I shall proceed to shew some other abbreviated ways of casting up goods and merchandize.

For retailers of small parcels, as mercers, linnen and woollen drapers, haberdashers of hats, &c.

THE most abbreviate and ready way is, to multiply the price by the quantity.

Example. Sold 7 yards of cloth, at $14s\ 6d$ a yard.

7

Ans. L. 5—1—6

Say 7 times 6 is 42, which is $3s\ 6d$, set down 6 pence and carry 3 shillings to the place of shillings, and say, 7 times 4 is 28, and 3 I carry is 31, set down 1s, and carry 3 angels to the place of tens of shillings, and say, 7 times 1 is 7, and 3 I carry is 10 angels, which is 5l. fix the 5l in the place of pounds: so the price of 7 yards is $5l\ 1s\ 6d$.

Example. Sold 11 yards and $\frac{1}{2}$ at $23s\ 3d$.

11

L. 7—5—9
the $\frac{1}{2}$ yard 6 - $7\frac{1}{2}$

Ans. L. 7·12·4 $\frac{1}{2}$

For half a yard, take half of $13s\ 3d$ and add to the product of 11 yards:

Object. There are many numbers under 100 that are included in the multiplication table, or being multiplied together, will not produce the given quantity; and so consequently cannot be done by this new way of practice.

Ans. It is very true, there are several numbers under 100, that no two numbers multiplied together can produce them, such as 13, 17, 19, 25, 29, 31, 33, 37, and many more.

Rule. In such cases, multiply by two such numbers, being multiplied together will come nearest to such numbers; then multiply the price by that part which wants to make up the given quantity. An example of which follows.

Example. 29 ells at 7—9

$$\begin{array}{r}
 7 \\
 \hline
 2-14-3 \\
 4 \\
 \hline
 10-17-0 \\
 7-9 \\
 \hline
 \end{array}$$

Here I multiply by 7 and 4, because 7 times 4 is 28, and for the odd ell to make it 29, I add the price of the ell to the product.

Ans. 11/ 4s 9d

Ans. 11—04—9

FRACTIONS

Are of two kinds

{ VULGAR,
and
DECIMAL.

A Vulgar fraction is caused by division of whole numbers, the remainder of which being less than the divisor, called the numerator, is always the dividend, and the denominator is the divisor.

3 Numerator.

4 Denominator.

A decimal fraction is such a one, whose denominator is understood, and therefore need not be expressed: and is an unit with as many cyphers following it, as there be figures and cyphers in the numerator.

Decimal fractions, whether they stand alone, or be joined with integers, have always a comma or point before them to distinguish them from integers, as, 5,56002

In decimals the value of every figure or cypher decreases by a tenfold proportion from the units place towards the right hand, as the whole numbers do increase the value towards the left hand, by the like proportion, as you may see in the following table.

6	C	Thousf.									
5	X	Thousf.									
4		Thousf.									
3		Hund.									
2		Tens									
1		Units									
2		Tens									
3		Hund.									
4		Thousf.									
5	X	Thousf.									
6	C	Thousf.									

Whole numbers Decimals

Cyphers before integers, and at the end, or right hand of decimals are of no value ; but after integers, and before decimals they have their value ; for in integers they increase, and in decimals they diminish the value of the other figures joined with them.

The integers 005 is but 5, and 004 is but 4, and 06 is but 6.

But in decimals, ,005 is $\frac{5}{1000}$, and ,004 is $\frac{4}{1000}$, and ,06 is $\frac{6}{100}$.

And again, in integers 500 is five hundred, and 400 is four hundred.

In decimals 500 is but 5, and 400 is but 4, &c.

Next to abbreviation and valuation of vulgar fractions, there is little required, but to know how to bring a fraction of a lesser name into a fraction of a greater name and to reduce fractions of diverse unequal denominators to one common denominator, which being well understood, you may with as much ease add, subtract, multiply and divide a fraction as you can a whole number.

In decimals a fraction is seldom abbreviated ; therefore,

1. To abbreviate any vulgar fractions, find such a number for dividing both the numerator and denominator thereof so, that no remainder be on either of the divisions

Example. Abbreviate $\frac{96}{120}$ into $\frac{4}{5}$ its lowest term.

Say, 12 in 96, 8 times, and 12 in 120, 10, then the fractions is $\frac{8}{10}$; then say, 2 in 8, 4 times, and 2 in 10, 5 times, then the fraction is $\frac{4}{5}$, so that 4 is to 5, as 96 to 120.

2. To know what part of a pound sterling any number of shillings and pence is, bring the shillings and pence

into pence for a numerator, and place 240 under it (the pence of one pound) for a denominator.

Example. What part of a pound is 11s 3d?

Facit $\frac{135}{240}$.

3. To reduce vulgar fractions into decimals, Add cyphers at pleasure to the numerator, and divide by the denominator. Example, viz.

Reduce 11s 3d into a decimal fraction.

$$\begin{array}{r}
 12 \qquad \qquad \qquad 240 \mid 1350000 \\
 \hline
 135 \qquad \qquad \qquad 150 \\
 \hline
 240 \text{ Numer. facit } 5625 \qquad 60 \\
 \hline
 \qquad \qquad \qquad 120 \\
 \hline
 \qquad \qquad \qquad 0
 \end{array}$$

Or, $\frac{5625}{10000}$, or, .5625

Example. Reduce $\frac{3}{4}$ into a decimal fraction.

$$\begin{array}{r}
 5 \overline{) 4000} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \qquad \qquad \qquad 800 \\
 \hline
 \end{array}$$

Or rather .8 Facit .800

4. To value a vulgar fraction, Multiply the integer into the numerator, and divide by the denominator.

What is the $\frac{2}{3}$ of a pound sterling?

$$\begin{array}{r}
 20 \\
 5 \overline{) 100} \\
 \hline
 4 \text{ } 80 \text{ } d \\
 \hline
 \end{array}$$

An ell worth 7s—8 what is $\frac{2}{3}$ worth?

$$\begin{array}{r}
 2 \\
 5 \overline{) 15 \text{—} 6} \\
 \hline
 \text{facit } 3 \text{—} 1 \frac{1}{2}
 \end{array}$$

5. To value a mixt number, Multiply the mixt number by the numerator, and divide by the denominator. Example.

l s d

A ship worth 794—11—9 what is $\frac{3}{4}$ worth?

5

8)3972—18—9
facit 496—12—4 $\frac{3}{4}$

6. To value a decimal fraction, expressing coin; every prime or unit in the first place is 2s value; every 5 in the second place 1s, and the rest farthings; but if they exceed $\frac{1}{2}$, there must be one farthing abated.

Reduce $\frac{7}{8}$ of a pound into a decimal fraction.

9) .700000
 .77777

Here 7 primes is 14s, and 5 taken out of the second place is 1s which makes 15s, then 2 remains, which is 4d to the thirds, or place of farthings, out of which abate 1 for $\frac{1}{2}$, it makes 15s 6 $\frac{1}{2}$ d, which is the $\frac{7}{8}$ of a pound sterling.

7. To reduce vulgar fractions to a common denominator, Multiply the numerator of each fraction into every denominator, except its own, which makes the product of a new numerator; then multiply all the denominators together, and that product is one common denominator to all the new numerators. Example.

Reduce $\frac{3}{4}$ and $\frac{1}{2}$ to a common denominator.

Facit $\frac{9}{12}$ and $\frac{6}{12}$.

Here 12 the common denominator to both the new numerators, viz. 8 and 9, and you find that 8 is to 12 as 2 to 3, and 9 is to 12, as 3 to 4.

So that $\frac{9}{12}$ is to $\frac{3}{4}$, and $\frac{6}{12}$ to $\frac{1}{2}$.

Reduce $\frac{3}{4}$, and $\frac{5}{8}$, and $\frac{7}{8}$ of a pound to a common denominator.

To prove your work, Divide your new numerator by the numerator of that fraction, and divide the common denominator of the fraction by the denominator, if both quotients are equal, your work is true.

Exam. $\frac{144}{192}$, is $\frac{48}{8}$ here divided by 3, make 48, and 192 divided by 4, gives 48, which was to be proved. Or, you may prove your work by abbreviation of fractions; but it is attended with much difficulty, where 4 or more fractions are reduced to a common denominator.

Now this reduction of fractions is of little use otherwise than to prepare a fraction to be either added, subtracted, multiplied, or divided.

As if the $\frac{3}{4}$ and $\frac{5}{8}$ and $\frac{7}{8}$ were to be added together reduce them first into a common denominator, as in the last rule, it makes $\frac{144}{192}$ and $\frac{160}{192}$ and $\frac{168}{192}$. Add all the new numerators together, make 472, which divided by 192, the common denominator, makes $2\frac{88}{192}$ as in the following example.

Addition of }
Vulgar Fractions }
 } 144
 } 160
 } 168

$$\begin{array}{r} 192 \overline{) 472} \\ 2 \overline{) 88} \end{array} \quad \begin{array}{c} l \quad s \quad d \\ \text{Facit } 2 \frac{88}{192}, \text{ or } 9-2 \end{array}$$

And if the $\frac{3}{4}$ and $\frac{5}{8}$ and $\frac{7}{8}$ were to be added together in decimals, reduce them first into decimal fractions, according to the third rule, and the operation stands, viz

0000

$$\begin{array}{r} \text{Addition of } \left\{ \begin{array}{l} \frac{3}{4}.75 \\ \frac{5}{8}.8333 \\ \frac{7}{8}.875 \end{array} \right. \quad \begin{array}{l} \text{Say, 4 in 30 is 7 times, and} \\ \text{in 20 is 5 times; and so for the} \\ \text{rest.} \end{array} \\ \hline \text{Decimals.} \quad \left\{ \begin{array}{l} .75 \\ .8333 \\ .875 \end{array} \right. \quad \begin{array}{c} l \quad s \quad d \\ \text{Facit } 2.4583, \text{ or, } 2 \ 9 \ 2 \end{array} \end{array}$$

By this addition you see how much less work is made by decimals than in vulgar fractions, and how easy their value is found out according to the sixth rule.

8. To reduce the compound fractions, or fractions of a lesser name into the fractions of a greater, Multiply the numerators together for a new numerator, and the denominators multiply together for a new denominator.

Reduce $\frac{3}{4}$ of a penny into the proper fraction of a pound sterling.

Say $\frac{3}{4}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{3}{4}$ of $\frac{1}{240}$, facit $\frac{3}{960}$.

9. To reduce a mixt number of a lesser name into the fractions of a greater, Reduce the mixt number into an improper fraction, and work as before.

Reduce $3\frac{1}{2}$ into the proper fraction of a pound sterling.

$\frac{1}{2}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{1}{2}$ of $\frac{1}{240}$, facit $\frac{1}{480}$.

By the same rule you may reduce any sort of weight or measure.

For compound fractions, their use is chiefly to bring fractions of divers denominations to one and the same denomination.

As if the $\frac{3}{4}$ of a penny, $\frac{2}{3}$ of a shilling, and $\frac{7}{8}$ of a pound were added together.

The $\frac{3}{4}$ of a penny must be reduced into the fraction of a pound and the $\frac{2}{3}$ of a shilling, must be reduced into the fraction of a pound, thus:

Then the fractions to be added
 of $\frac{3}{4}$ fac. $\frac{3}{960}$ } are $\frac{3}{960}$ and $\frac{2}{30}$ and $\frac{7}{8}$, which re-
 of $\frac{2}{3}$ fac. $\frac{2}{30}$ } duce to a common denominator,
 and add them together, either by
 decimals or vulgar fractions.

Addition of Fractions.

IF the fractions to be added have one common denominator, add all the numerators together, and divide the product by the common denominator.

Example. Add $\left\{ \begin{array}{c} \frac{8}{12} \\ \frac{5}{12} \\ \frac{7}{12} \end{array} \right\}$ of a pound together.

$$\begin{array}{r} 12 \overline{) 20} \\ \text{Facit } 1\frac{8}{12} \end{array}$$

2. If the fractions to be added be of different denominators, reduce them to a common denominator, and proceed as before.

Example. Add $\frac{7}{8}$ and $\frac{3}{4}$ and $\frac{2}{3}$ together.

8	—	—	84
4	28	24	8
—	3	3	8
32	—	—	64
3	84	72	64
—	—	—	96
96	96	96	220

Facit $2\frac{8}{96}$

To add $\frac{7}{8}$ and $\frac{3}{4}$ and $\frac{2}{3}$ of a pound in decimals, reduce them into decimal fractions, and add them up as in whole numbers, keeping the place of units just under each other.

$$\text{Add } \left\{ \begin{array}{l} \frac{7}{8}, 875 \\ \frac{3}{4}, 75 \\ \frac{2}{3}, 6666 \end{array} \right.$$

2,2916

l s d
Facit 2— 4— 10

$$8 \overline{) 71000}$$

875

$$4 \overline{) 3000}$$

75

$$3 \overline{) 20000}$$

6666

Subtraction of Fractions.

1. **T**O subtract fractions of different denominators, reduce them to a common denominator, and subtract the lesser fraction from the greater.

2. If a mixt number and a fraction are to be multiplied together, reduce the mixt number into an improper fraction, and work as in the last.

Example. Multiply $1\frac{3}{4}$ by $\frac{3}{4}$.

$$\frac{3\frac{3}{4}}{1} \text{ by } \frac{3}{4} \text{ facit } \frac{10\frac{3}{4}}{1}$$

Example. Multiply $11\frac{3}{4}$ by $2\frac{3}{4}$

$$\frac{1\frac{3}{4}}{1} \text{ by } \frac{1\frac{3}{4}}{1} \text{ facit } \frac{3\frac{9}{16}}{1} \text{ or } 32 - 1 = 31$$

3. To multiply a mixt number by an integer, make the integer an improper fraction, by placing [1] under it, and reduce your mixt number into an improper fraction, and work as in the first rule.

Example. Multiply $7\frac{7}{8}$ by 4

$$\frac{6\frac{1}{8}}{1} \text{ by } \frac{4}{1}, \text{ facit } \frac{28\frac{4}{8}}{1}$$

4. Multiplication of decimals is the same as in whole numbers, saving as many decimal parts as are in the multiplicand and multiplier, so many must be cut off from the product, which if it have not so many places the defect must be supplied with cyphers towards the left-hand.

Multiply ,1005
by ,631

1005

3015

Facit ,0031155

11,83

2,87

8281

9464

2366

33,9521

Division of Fractions.

1. **T**O divide single fractions: there is no need to reduce the fractions to a common denominator

but multiply the numerator of the divisor, by the denominator of the dividend. And contrary for the terms of the quotient, thus:

Example. Divide $\frac{7}{8}$ by $\frac{3}{4}$

$$\frac{\frac{7}{8} \cdot \frac{4}{3}}{\frac{3}{4}}, \text{ or } 1 \frac{1}{6}$$

2. If it happens that the fraction of the divisor be greater than the fraction of the dividend, the facit of such division is a fraction.

Example. Divide $\frac{1}{4}$ by $\frac{7}{8}$

$$\frac{\frac{1}{4} \cdot \frac{8}{7}}{\frac{7}{8}} = \frac{\frac{2}{7}}{\frac{7}{8}}$$

Facit $\frac{2}{7} \cdot \frac{8}{7} = \frac{16}{49}$

3. To divide an integer by a fraction, multiply the integer into the denominator, and divide by the numerator.

Example. Divide 8 by $\frac{5}{6}$

$$\frac{8 \cdot 6}{5} = \frac{48}{5}$$

$9 \frac{3}{5}$ Facit

4. To divide a fraction by an integer, place the numbers as follows, and work as by the first rule.

Example. Divide $\frac{3}{4}$ by 3

$$\frac{3}{4} \div 3 = \frac{3}{4} \cdot \frac{1}{3} = \frac{1}{4}$$

Facit $\frac{1}{4}$

5. To divide a mixt number by an integer, reduce the mixt number into an improper fraction, whose denominator multiply by the integer for your divisor.

Example. Divide $3 \frac{1}{8}$ by 2

$$\frac{3 \frac{1}{8} \cdot 8}{2} = \frac{25}{2} = 12 \frac{1}{2}$$

R 2

6. To divide a mixt number by a fraction, reduce the mixt number into an improper fraction, and work as before.

Example. Divide $3\frac{3}{4}$ by $3\frac{1}{4}$

$$\frac{15}{4} \div \frac{13}{4} \text{ facit, or } 6 \frac{2}{13}$$

7. To divide an integer by a mixt number, reduce the mixt number and integer into improper fractions, and proceed as before.

Example. Divide 5 by $3\frac{1}{2}$

$$\frac{10}{2} \div \frac{7}{2} \text{ facit}$$

Or, $1\frac{7}{7}$ facit

8. To divide a mixt number by a mixt number, reduce them into improper fractions, and divide as before.

Example. Divide $3\frac{1}{2}$ by $2\frac{1}{3}$

$$\text{Or, } \frac{7}{2} \div \frac{5}{3}$$

Facit $\frac{21}{10}$ or $2\frac{1}{5}$

Division of decimals is the same as in whole numbers, till the work be done, and then use the converse of the rule for multiplication, viz. so many decimals as are in the dividend, so many there must be in the divisor and quotient; and if there be not so many, the quotient must be supplied with cyphers towards the left-hand.

Example. Divide 33,9521 by 2,87

$$\begin{array}{r} 2,87 \overline{) 33,9521} \\ \underline{2382} \\ \text{Facit } 11,83 861 \\ \underline{ 00} \end{array}$$

See the converse in multiplication of decimals.

The Rule of Three in Fractions.

RULE: You must multiply your second and third numbers together, and divide by your first, Observing the same method as in whole numbers, viz. That the first and third numbers be of one name or denomination.

Example. If $3\frac{1}{2}$ ^d buy $\frac{2}{3}$ ^{lb} of tobacco, What shall $96\frac{1}{2}$ ^l buy?

$$\begin{array}{r} \frac{2}{3} \text{ of } 3\frac{1}{2} \quad 1 \text{ lb } 1 \\ \hline 2\frac{1}{2} - \frac{2}{3} - 95\frac{2}{3} \\ \hline 3\frac{1}{2} \text{ by } \frac{2}{3} \\ \hline 7\frac{6}{12} \end{array}$$

Divide $7\frac{6}{12}$ by $2\frac{1}{2}$

$$\begin{array}{r} 7 \\ \hline 766 \end{array}$$

$$\begin{array}{r} 84 \quad 2880 \\ \hline \end{array}$$

$$2880$$

$$3360$$

$$\begin{array}{r} 84 \overline{) 367680} \\ \hline \end{array}$$

$$316$$

$$648$$

$$600$$

Facit 4377 lb of tobacco

$$12$$



The MENSURATION of plain Superficies (or flat measure) such as board, glass, painting, and the like.

Note 1. **T**HAT in superficial measure, 12 times 12 inches, being 144 inches, are the number of inches contained in a square foot of superficial measure.

2. That to square any number, is to multiply it by itself, as if you would know how many square feet is contained in a yard square, multiply 3, the feet in one yard by 3, the product is 9, and so many feet make a yard square.

Example. How many square inches are there in a yard square.

1 yard is 3 feet

$$\begin{array}{r}
 12 \\
 \hline
 36 \text{ inch} \\
 36 \\
 \hline
 216 \\
 108 \\
 \hline
 \end{array}$$

Facit 1296 inch

The general rule is to multiply the length by the breadth, the product is the content.

Example 1. A board 12 foot long, and 14 inches broad, how many square feet?

$$\begin{array}{r}
 12 \\
 \hline
 144 \\
 14 \\
 \hline
 576 \\
 144 \\
 \hline
 144) 2016
 \end{array}$$

576 Facit 14 square feet.

00

Example 2. A piece of wainscot 24 foot, 9 inch long and 11 feet deep, how many square yards?

Feet. inches.	} Mul.	Yards. feet. inches
24—9		Facit 30—2—3
11		Or, 30—3— $\frac{3}{4}$
9)272—3		

Example 3. A painter hath done a room. 90 feet about, and $11\frac{1}{2}$ feet high, I demand the square yards therein?

Feet
11,5 high
90 about
9) 1035 (115 yards for answer
13
45

Note, This way is done much truer and with fewer figures, and no charge to the memory.

Example. A glazier hath done a pane of glass of 5 feet 73, high, and 5 feet 54, broad, at 6 d the foot square.

Note, The glazier's foot divided into 10 parts, and every part into 10 parts more

5, 73
5, 54
2292
2865
2865

Facit, feet, 31,7442

A general rule to measure round or square pillars.

Multiply the length by the circumference of round pillars.

And for square pillars, add the sides or breadth together, and multiply the total by the length.

Example 5. A painter hath done a pillar of 6 feet 3 inches circumference, and 14 feet 9 inches long, I demand the square yards of painting?

The common and best way to do this, is by cross multiplication, thus,

$$\begin{array}{r}
 \text{Feet. inch.} \\
 14-9 \\
 6-3 \\
 \hline
 3-8-3 \\
 88-6 \\
 \hline
 \end{array}$$

Facit, feet 92—2—3 answer
Or, yards 10—2—2—3

Multiplying 9 by 3, gives 2 feet 3, put down the 3, and carry 2; then 3 times 14 is 42, and 2 is 44, which is 3 feet 8, which put down as you see.

Then 6 times 9 is 54, which is 4 feet 6, put 6 under the 8 (as being 12ths of a foot as the 8 is) then 6 times 14 is 84, and 4 is 88. So the sum of the 2 lines is 92 feet 2—3—. Or the feet divided by 9, is 10 yards 2 feet, 2 primes (or 12ths of a foot) and 3 seconds or 12ths of a 12.

The same is done decimally thus :

$$\begin{array}{r}
 14, 75 \text{ feet} \\
 6, 35 \\
 \hline
 7375 \\
 2950 \\
 8850 \\
 \hline
 \end{array}$$

9)92,1875
Or yards 10. 2,1875 feet.

For regular polygons, add all the sides together, and multiply the total by half the nearest distance from the centre to one of the sides.

For cones, multiply half the length by the circumference.

For pyramids, add all the breadth at the base together, and multiply half the length by the total.

For globes, multiply the area of the greatest circle by it gives the content.

Mensuration of solids.

Solids; such as stone, timber, &c. are measured by the cubic or solid foot; now a cube is a figure like a dye of six equal sides, and a cubic foot contains 12 inches square on every side.

THE rule is, multiply the length by the breadth, and that product multiply by the depth, which divide by 1728, the cubic inches in a foot solid.

Example.

A piece of timber 16 feet long, 14 inches broad, and 9 inches deep, how many solid feet doth it contain?

12	16
12	12
144	192
12	14
1728	768
	192
	2688
	9

1728) 24192 Facit 14 feet

6912
14

000

Example.

A stone 7 feet 3 inches long, 4 feet 5 inches broad, and 2 feet 3 inches deep, how many solid feet?

MENSURATION.

7—3	4—5	2—
12	12	12
87 length	33	27
53 breadth		
261		
435	1628)	12449
4611		353
27 deep	Facit 72 solid feet	81
		rests
32277		1678
9222		Or 6'—9"

Facit 124497 cubic inches

But the way most used, and which is shorter and more like an artist, is this.

Inch. Feet

4—5 broad

2—3 deep

1— 1—3

8—10—0

9—11—3

7— 3—long

2—5—9—9

69—6—9

Feet 72—0—6—9

Only carrying the 12s both in your multiplication and addition.

To find how many inches in length make a solid foot of timber, multiply the number of inches square in itself for divisor, and make 1728, the cubical inches of foot your dividend.

Example.

A piece of timber 18 inches square, what length will require to make a foot solid ?

$$\begin{array}{r} 18 \\ 18 \\ \hline 144 \\ 18 \end{array}$$

Facit 5 inches 108

Example.

How many inches in length will make a foot, at 12 inches square ?

$$\begin{array}{r} 12 \\ 12 \\ \hline 144 \\ 12 \end{array}$$

Facit 12 inches

PLANK MEASURE.

A table shewing how many feet make a load of plank of any thickness.

Inch Feet to
thick the load

1	—600
1½	—400
2	—300
2½	—340
3	—200
3½	—171,428
4	—150
4½	—133,31

Inch Feet to
thick the load

5	—120
5½	—109,0912
6	—100
6½	—92,076
7	—85,714
7½	—80
8	—75
8½	—70,588

The way to make this table, or to know how many feet of plank make a load of any thickness.

Rule. Say, if 12 inch thick, require 50 feet to make a load, what will 4 inch thick require? This by the reverse rule of three gives 150, as you see by the operation.

$$\begin{array}{r} 12. \quad 50 \quad 4. \\ \quad \quad 12 \end{array}$$

$$4) 600 (150$$

So that if you divide 600 by any thickness of plank, the quotient sheweth how many feet thereof make a load.

2 Exam. If it were required to know how many load are in 5762 feet of plank 5 inches thick.

By the table 120 feet make a load; therefore divide 5762 by 120, and the quotient is loads.

$$120) 5762) 48 \frac{2}{3} \text{ or } 48 \frac{1}{3} \text{ loads.}$$

Or multiply the feet given by 144, and that product by the thickness of the plank, then divide by 1728 the inches in a solid foot, and that quote is feet, which divide by 50 the feet in a load, and you have the loads without the table.

$$\begin{array}{r} 5762 \\ 144 \\ \hline 82928 \\ 5 \end{array}$$

$$\begin{array}{r} 1728) 4148640 \quad (2400 \quad (48 \frac{1}{3} \text{ load.} \\ 6926 \quad 50) \\ 1440 \end{array}$$

Note, The remainder $\frac{1440}{1728}$ is equal to 56 feet, and $\frac{5}{30}$ of $\frac{1}{30}$ is equal to $\frac{1}{60}$ of the load as above.

Example 3. In 1234 feet of 4 inches plank, how many load and solid feet?

$$\begin{array}{r} 150) 1234 \quad (8 \text{ load.} \\ 3) 34 \quad (11 \text{ solid feet.} \end{array}$$

For the solid feet, divide the remainder by the number of 50's contained in the divisor; or by the times that the thickness of the plank is found in 12 as above.

Also, if the last example were done by the second rule, under the second example, 1234 multiplied by

344, gives 177696, and that by 4 inches thick, 710784, which divided by 1728, the quote is 411 feet, or 8 load (divided by 50) and 11 feet, as in the last rule and example.

3dly, To know how many feet of a plank of any thickness make a tun. Say by the inverse rule of three, as 12 to 40, so the thickness to the answer.

$$\begin{array}{r} 12. \quad 40. \quad 4 \\ \hline 12 \end{array}$$

4) 480 (120 feet in the tun.

And so may you make a table of the feet of any thickness in a tun (as is before shewed for the load) by only dividing the 480, by the thickness of the plank.

So in thickness	Feet make a tun
of 1 inch	480
2 ———	240
3 ———	160
4 ———	120
5 ———	96
6 ———	80





A Short and Easy

M E T H O D

O F

BOOK-KEEPING.

I N S T R U C T I O N S.

Quest. **W**Hat is the first thing I must do, who design to keep my books of accompts after this method.

Answ. You must make an inventory; an example of which is at the end of these instructions.

Q. How must I post the first part of this inventory?

A. You must post it on your ledger, viz. merchandize, to the debit of that accompt.

Cash, to the debit of your cash book.

George Mason's debt, to the debit of his accompt.

Germain Bell's debt, to his debit also.

And for the whole sum (viz. 730 *l.*) you must give counterpart in credit of stock.

Q. How must I post the other part of this inventory.

A. To the credit of Thos. Richards, the sum you owe him.

To the credit of John Fair, the sum you owe him.

And for the whole sum, (viz. 100 *l.*) you must debit stock. See the several accompts, fol. 1, 2.

Q. I see by the first page of the day-book, that it contains entries of goods sold to sundry persons: How must these be posted.

A. To debit of Richard Hughs, what sold him.

To debit of Anthony Coule, the like.

To debit of John Gray and company, the like.

To debit of Richard Hunt, the like. See their accmpts, Fol. 3. ledger.

And counterpart must be given for the whole sum of this page (viz. 16/ 10s 10d) on credit of merchandize in the said ledger. See accmpt of merchandize, Fol. 1. ledger.

And the like must be done for the pages 2, 3, 4, 5 and 6 of the said day-book.

Note, That the ready money taken for goods sold is posted each month to the debit of your cash book.

Q How must I enter the monies I receive (of debtors on my ledger?)

A On your debit side of your cash-book. See that book.

Q How must I post those sums received into my ledger?

A To the credits of the persons, of whom received. See the accmpts of

Richard Hughs	—	—	Fol. 3
Anthony Coule	—	—	Fol. 3
John Gray and company			Fol. 3
Thomas Wilson	—	—	Fol. 3
Henry Trap	—	—	Fol. 4

Q How must I post (into my ledger) the total receipts of the month of August (viz. 57/ 3s 10d.)

A You must post that total to the debit of your cash, in your ledger, writing,

To Sundries. Received per cash-book. See the accmpt of cash, in the ledger, Fol. 1

Do the like for September and October's receipts.

Q How must I enter the monies I pay those I owe to, and who have credit in my ledger.

A On the credit-side of your cash-book. See the cash-book.

Q How must I post those sums paid?

A To the debits of the persons to whom paid. See the accmpts of Thomas Richards, Fol. 2. and John Fair, Fol. 2. in your ledger.

Q How must I post (into my ledger) the total payments of the month of August (viz. 30/.)

A You must post it to the credit of your cash, in your ledger, writing,

By Sundries paid per cash-book. See the accompt of cash in your ledger, Fol. 1.

Q I understand by these directions, how to state and post my books, How must I proceed in balancing my ledger?

A Value your merchandize remaining unfold, and enter the sum of their value on credit of the accompt of merchandize, in your ledger. See the accompt of merchandize, Fol. 1.

And give the counterpart in debit of the accompt of balance in the said ledger. See the debit of balance, Fol. 4.

Which done, subtract the debit side of the said accompt of merchandize from its credit, and place the remainder (viz. 97/ 10s) on the debit side of it. See the accompt, Fol. 1.

And give counterpart on credit of profit and loss in the said ledger. See accompt of profit and loss, Fol. 4.

Then add up debtor and creditor of the accompt of cash in the said ledger, and subtract the credit from the debit, and place the cash remaining (viz. 297/ 7s 1d) on credit of the said accompt of cash. See the accompt Fol. 1. and give counterpart in debit of the accompt of balance. See said accompt of balance, Fol. 4.

Q How must I do with the accompt of expences?

A Write on its credit side (the 32/) by profit and loss, and give counterpart in debit of the accompt of profit and loss. See both the accompts, Fol. 2, 4.

Q How must I do with the accompt of George Mason, who, I find by his accompt, owes me 10/.

A You must write on credit of his accompt by balance now owing to me 10/.

And give counterpart, on debit of balance. See both the accompts, Fol. 2, 4.

Do in the same manner by the accompts of

Germain Bell — — Fol.

Richard Hughes — — Fol.

John Gray and company Fol.

And Thomas Wilson — Fol.

See their particular accompts in your ledger.

Q How must I do with the accompt of Thomas Richards, to whom I find I owe 20/.

A You must write on the debit of his accompt. To balance now due to him 20/.

And give counterpart on credit of balance. See both the accompts, Fol. 2, 4.

Do the like with the accompt of John Fair. See his accompt, Fol. 2.

Q How must I do to balance or close the accompts of stock, profit and loss?

A Subtract the debit, or profit and loss from its credit, and set the remainder (viz. 65/ 10s) being your clear gain during the time of this trade, on the debit of profit and loss. See the accompt, Fol. 4.

And give counterpart in credit of stock. See accompts of stock, Fol. 4.

Q How must I do to balance the accompts of stock?

A Subtract its debit from its credit, and set the remainder (viz 685/ 10s being your present neat stock) on the debit of stock. See the accompt, Fol. 1.

And give counterpart in credit of balance. See accompt of balance, Fol. 4.

This done, your ledger is balanced, and the accompt of balance, Fol. 4.

This done your ledger is balanced, and the accompt of balance (if you have proceeded right) will be equal on both sides.

The INVENTORY.

London, August 1, 1759.

Have merchandize of sundry }
sorts to the value of ——— } L 520—00—00

In cash or ready money ——— 180—00—00

Owing to me, by

Richard Mason ——— 20—00—00

Jermain Bell ——— 10—00—00

Owing by me, to

Thomas Richards L. 60—00—00

John Fair ——— 50—00—00

————— L. 110—00—00

My neat stock 620—00—00

Cash-Book. I.

Receipts—Debtor.

l. s. d.

August, 1759.

1	To stock by inventory	—	1	180	00	00
8	Richard Hughs, of him	—	3	4	00	00
12	Anthony Coule, ditto	—	3	3	60	06
16	John Gray and company, ditto	—	3	1	10	06
20	Thomas Wilson, ditto	—	3	4	13	00
30	Henry Trap, ditto	—	4	0	15	00
pt. 31	Merchandize since 1st of August	—		42	18	10
				237	03	10
	L. 57—03—10 Received					

September, 1759.

		Laſt balance	3	207	03	10
11	Richard Hughs, of him	—	3	8	15	11
—	Anthony Coule, ditto	—	2	3	00	00
15	George Maſon, ditto	—	2	10	00	00
20	Germain Bell, ditto	—	4	5	00	00
24	Henry Trap, ditto	—	3	2	06	00
30	John Gray and company, ditto	—		2	00	03
—	Merchandize ſince 1ſt of September	—		38	06	06
				276	12	06
	L. 69—18—08 Received					

BOOK-KEEPING,

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I.

Payments—Creditor.

l. s. d.

August, 1759.

23 By Thomas Richards, to him — — 2 20 00 00
 31 John Fair, ditto — — — 2 10 00 00

Paid this month — 30 00 00

Resting per balance — 207 03 00

237 03 10

September, 1759.

22 John Fair, to him — — — 2 5 00 00
 28 Thomas Richards, ditto — — — 2 10 00 00

Paid this month — 15 00 00

Resting per balance — 261 12 06

276 12 06

2.

Receipts——Debtor.

l. s. d.

October, 1759.

		Last balance —	261	12	06
11	To Anthony Coule, of him —	3	2	00	00
20	John Biddy, ditto —	4	2	18	00
31	John Gray and company, ditto —	3	5	15	03
pt	Merchandize since 1st of October		86	11	04
			---	---	---
	L. 97—04—07 Received		358	17	01

November, 1759.

BOOK-KEEPING.

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2.

Payments ——— Creditor.

l. s. d.

October, 1759.

206	15	By Thomas Richards, to him	2	10	00	00
000	28	John Fair, ditto	2	20	00	00
800	31	Expences, &c. since 1st of August	1	32	00	00
503						
104		Paid this month		62	00	00
701		Resting per balance		296	17	01
				358	17	01

November, 1759.

A
 DAY-BOOK
 OR
 JOURNAL

Day-Book.		1.			
Accompts debtor to merchandize.		Sold.		L.	l. s.
August 1, 1759.					
3	Richard Hughs,				
	39½ ells linnen, at	—	—	s. 3 2	6 05 01
	— ditto	—	—		
3	Anthony Coule,				
	58½ ells of linnen, at	—	—	s. 2 4	6 16 06
	— ditto 5	—	—		
3	John Gray and company,				
	3 doz. scissars, at 4 0	—	L. 0 12 0		
	3 doz. ditto 3 9	—	0 11 3		
	6 doz. round points 3 9	—	1 02 6		
	6 doz. middling 2 8	—	0 16 0		
	— ditto 10	—	—	3 01 09	
3	Richard Hughs				
	3 masses of pearl, at	—	—	0 2 6	0 07 06
Merchandise sold		—		16	10 10

Day-Book. 2.

Accompts debtor to merchandize.

l. s. d.

Sold.

August 17. 1759.

Thomas Willon,

12 doz. scissars	4	3	L. 4—12—9
6 doz. middling	4	3	1—05—6
9 doz. ditto	2	8	1—04—0
20 doz. small	1	6	1—10—0

8 13 00

—ditto 20

Anthony Coule,

1 looking Glafs	L. 0—08—6
1 ditto middling	0—09—6
3 tortoise shell combs	0—06—0

1 04 00

—ditto 23

Henry Trap,

1 doz. scissars with cases	L. 0—09—6
1 doz. without cases	0—05—6

0 15 00

Sold.

August 27. 1759.

Richard Hughs

3 pair scissars half barb	L. 0—06—0
1 doz. ditto, small set	0—05—0
2 knives at 20d	0—03—4
1 doz. comb-brushes	0—03—0
6 pen-knives, at 8d	0—04—0
12 doz. clasp knives	1—17—0
24 doz. knives, horn handed	3—00—0

5 18 04

Merchandize fold 16 10 04

Day-Book. 3.

Accompts debtor to merchandize.

Sold.

August 31. 1759.

1	Receipts in ready money for goods since the 1st of August	42 18 10
---	--	----------

September 3. 1759.

4	Henry Trap A parcel of sciffars	0 12 00
---	------------------------------------	---------

	ditto 6	
3	Richard Hughs 2 masses pearl, at	2s d6 00 5 00

	ditto 11	
3	Richard Hughs, 13 ells cloth, at	s. 2-6d. 1 12 06

	ditto 15	
3	Anthony Coule, 4 masses pearl 2 6	L. 0-10-0
	1 1/2 doz. pendants 4 6	0-06-0

	ditto 16	
--	----------	--

4	Henry Trap, 12 doz. horn trumpets 2	L. 1-04-0
	2 doz. comb brushes 3	0-06-0
	2 doz. ditto 2	0-04-0

	Merchandize sold	47 18 00
--	------------------	----------

Day Book. 4.

Accompts debtor to merchandize.

l. s. d.

Sold.

September 30, 1759.

4 John Bidby,

3 masses Ven. pearl, at L. 1 00 0

2 doz. scissars, at — 0 09 0

13 doz. fine combs, at — 1 09 0

218 00

ditto

3 John Gray and company,

1 piece white gauze qt. 24 ells — —

1 piece — ditto — 22 — —

1 piece — ditto — 20 — —

1 piece — ditto — 18 — —

1 piece yellow ditto — 20 — —

1 piece black ditto — 19 — —

Ells — 123 at 21d

1015 03

ditto

Receipts in ready money for goods since
the 1st of September — — —

38 06 06

October 2. 1759.

Thomas Wilton,

1 doz. scissars with cases, at L. 0 12 0

4 masses pearl, at 2s. — 0 08 0

9 masses, ditto, at — 3 17 4

417 04

Merchandize sold —

56 17 01

T

Day Book. 5.

Accompts debtor to merchandize.

l. s. d.

Sold.

October 29, 1759.

Thomas Wilson,

2 pieces tabby, qt. 61 } L. 25 18 6
ells—8s. 6d. }1 piece ditto, qt. } 11 18 0
28 ells—8s. 6d. }

37 16 06

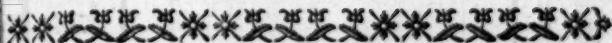
ditto 31

Receipts in ready money for goods since } 86 11 04
the 1st of October ——— }

Merchandize sold — 124 07 10

THE

LEDGER.



ALPHABET.

B
Bell, Germain 2
Biddy, John 4
Balance 4

C
Coule, Anthony 3
Cash 1

E
Expences and abatem. 1

F
Fair, John 2

G
Gray, John and comp. 3

H
Hughs, Richard 3

M
Merchandize 1
Mafon, George 2

P
Profit and losfs 4

R
Rept. and paym. cash 1
Richards, Thomas 2

S
Stock 1

T
Trap, Henry 4

W
Wilfon, Thomas 3

Ledger. I.

		l. s. d.	
1759		Stock — Debtor.	
Aug.	2	To sundry to whom I owe	110 00 00
Oct.	31	To balance N. stock	4 68 11 00
			795 11 00

		l. s. d.	
1759		Merchandise, Debtor.	
Aug.	1	To stock per inventory	1520 00 00
Oct.	31	To P. and L. carried thither	4 97 10 00
			617 10 00

		l. s. d.	
1759		Receipts or Cash, Debtor.	
Aug.	1	To stock, money per inventory	1180 00 00
	31	To fund. per book, page 1	57 03 10
Sept.	30	To sundries — — 1	69 18 00
Oct.	31	To sundries — — 1	97 04 00
			404 07 10

		l. s. d.	
1759		Expences, &c. Debtor.	
Oct.	3	To payment hereon since Aug. 1.	1 31 19 00

BOOK-KEEPING.

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Ledger. I.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
		Stock———Creditor.			
1759					
Aug. 13		By Sundry per inventory ———	730	00	00
Oct. 31		By pro. and loss, gain'd in 3 mon.	4 065	11	00
			795	11	00
		Merchandize, Creditor.			
1759					
Aug. 10		By sundries sold, day-book 1—	16	10	10
27		By sundries ——— page ——— 2—	16	10	04
Sept. 16		By sundries ——— ——— 3—	47	18	04
Oct. 20		By sundries ——— ——— 4—	56	17	01
31		By sundries ——— ——— 5—	124	07	10
			262	14	05
		By bal. value of remains ———	4 354	15	07
			617	10	00
		Payments or Cash, Creditor.			
1759					
Aug. 31		By sundries per book ——— 1—	30	00	00
Sept. 30		By sundries—page ——— 1—	15	00	00
Oct. 31		By sundries—page ——— 1—	62	00	00
			07	00	00
		By balance, rest in cash ——— 1—	4 297	07	01
			404	07	02
		Expences, &c. Creditor.			
1759					
Oct. 31		By profit and loss carried there—	4 31	19	00

BOOK-KEEPING.

Ledger. 2.

		l. s. d.		
1759	George Mafon, Debtor.			
Aug.	I To stock, now owing me	I	20	00 00

1759	Germain Bell, Debtor.			
Aug.	I To stock, now due to me	I	10	00 00

1759	Thomas Richards, Debtor.			
Aug. 23	To payment, to him	I	20	00 00
Sept. 28	To ditto	I	10	00 00
Oct. 25	To ditto	I	10	00 00
	To balance now due to him		40	00 00
			20	00 00
			60	00 00

1759	John Fair, Debtor.			
Aug. 31	To payment, to him	I	10	00 00
Sept. 23	To ditto	I	5	00 00
Oct. 28	To ditto	I	20	00 00
	To balance now owing him	4	35	00 00
			15	00 00
			50	00 00

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L. s. d.		L. s. d.	
Ledger. 2.			
1759	George Mason, Creditor.		
Sept. 15	By receipt of him —	1	10 00 00
Oct. 31	By balance now owing to me —	4	10 00 00
			20 00 00
1759	Germain Bell, Creditor.		
Sept. 20	By receipt of him —	1	5 00 00
Oct. 31	By balance, now owing me —	4	5 00 00
			10 00 00
1759	Thomas Richards, Creditor.		
Aug. 1	By stock now owing him —	1	60 00 00
1759	John Fair, Creditor.		
Aug. 1	By stock now due to him —	1	50 00 00

Ledger. 3.

				l.	s.	d.
1759		Richard Hughs, Debtor.				
Aug.	1	To merchandize sold him — —	I	6	05	01
	10	To ditto — — — —	I	0	07	06
	27	To ditto, a parcel — — — —	I	5	18	04
Sept.	6	To ditto, 2 masses of pearl — —	I	0	5	00
	11	To ditto, 13 ells of cloth — —	I	1	12	06
				14 08 05		

1759		Anthony Coule, Debtor.				
Aug.	5	To merchandize sold him — —	I	6	16	06
	20	To ditto, a parcel — — — —	I	1	0	00
Sept.	15	To ditto, a parcel — — — —	I	0	16	00
				8 16 06		

1759		John Gray and comp. Debtor.				
Aug.	5	To merchandize, a parcel — —	I	3	01	09
Sept.	30	To ditto, a parcel — — — —	I	10	15	03
				13 17 00		

1759		Thomas Wilson, Debtor.				
Aug.	17	To merchandize, a parcel — —	I	8	13	00
Oct.	2	To ditto, a parcel — — — —	I	4	17	04
	29	To ditto, a parcel — — — —	I	37	16	06
				51 06 10		

BOOK-KEEPING.

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Ledger, 3.

d.		L		d.	
L					
Richard Hughes, Creditor.					
1759	Aug. 18	By receipt of him	1	4	00 00
5 01	Sept. 11	By ditto	1	8	15 11
7 06					
8 04					
5 00					
2 06					
8 05					
By balance now owing me			4	1	12 6
				14	8 5
L					
Anthony Coule, Creditor.					
1759	Aug. 12	By receipt of him	1	3	6 6
6 06	Sept. 11	By ditto	1	3	00 00
4 00	Oct. 11	By ditto	1	2	00 00
6 00					
6 06					
Balance				10	00
				8	16 6
L					
John Gray and comp. Creditor.					
1759	Aug. 16	By receipt of them	1	1	10 6
01 09	Sept. 30	By ditto	1	2	00 3
15 03	Oct. 31	By ditto	1	5	15 3
17 00					
By balance now owing me			4	9	6 00
				4	11 00
				13	17 00
L					
Thomas Wilson, Creditor.					
1759	Aug. 20	By receipt of him	1	4	13 00
16 06	Oct. 31	By balance now owing me	4	46	13 10
06 10					
				51	06 10

Ledger. 4.

1759	Henry Trap, Debtor.			
Aug. 25	To merchandize, a parcel	—	I	0 15 00
Sept. 3	To ditto	—	I	0 12 00
16	To ditto	—	I	1 13 00
				3 00 00
1759	John Bidy, Debtor.			
Sept. 30	To merchandize, a parcel	—	I	2 18 00
1759	Profit and loss, Debtor.			
Oct. 31	To expences, &c. brought here		2	31 19 00
	To stock gained since Aug. 1st	—	I	65 11 00
				97 10 00
1759	Balance, Debtor.			
Oct. 31	To merchandize now remaining		I	354 16 7
	To receipts, or cash resting	—	I	297 17 1
	To George Mason, now owing		2	10 00 00
	To Germain Bell, ditto	—	2	5 00 00
	To Richard Hughs, ditto	—	3	1 12 6
	To John Gray and company, ditto		3	4 11 00
	To Thomas Wilson, ditto	—	3	46 13 00
	To Anthony Coule, ditto	—	3	00 10 10
				720 11 00

Ledger. 4.

			l.	s.	d.
1759		Henry Trap, Creditor.			
Aug. 30		By receipt of him — — —	1	0	15 00
Sept. 24		By ditto in full — — —	1	2	06 00
				3	01 00
1759		John Biddy, Creditor.			
Oct. 20		By receipt in full — — —	1	2	18 00
1759		Profit and loss, Creditor.			
Oct. 31		By merch. to close that account	1	97	10 00
1759		Balance, Creditor.			
Oct. 31		By Thomas Richards, I owe him	2	20	00 00
		By John Fair, ditto — — —	2	15	00 00
				35	00 00
		By stock, for its neat — — —	1	685	11 00
				720	11 00

D I R E C T I O N S.

Quest. **H**AVING taught me how to state, post, and balance my books; what method must I use at the going out of these books into others?

Answ. From the balance of these books (see ledger, fol. 4.) you must draw out another inventory as follows.

The I N V E N T O R Y.

London, October 31. 1759.

I Have in merchandize of sundry }
 sorts to the value of ——— } L. 354 16 07
 In cash, or ready money ——— — 297 07 01

Owing to me, by

George Mason	— — —	L. 10 00 00
Germain Bell	— — —	5 00 00
Richard Hughes	— — —	1 12 06
John Gray and company	— — —	4 11 00
Thomas Wilson	— — —	46 13 10
Anthony Coule	— — —	00 10 00
		720 11 00

Owing by me, to

Thomas Richards	L. 20 00 00
John Fair	— — 15 00 00
	L. 35 00 00
My neat stock	685 11 00

And post it into your new ledger, as by the directions given for the posting your other inventory.

Q In the cash-book on debtor side, (for instance, in the month of August) are figures just before the money-lines, as 1 before 180/, and 3 before 4/. &c. I desire to know what those figures shew.

A. The figure 1 (before 180/, in the first line) shews the folio of the ledger, on which the accompt of stock stands.

The figure 3 following Richard Hughs, in the next line, shews the folio of the ledger, whereon the accompt of Richard Hughs stands.

The like is to be understood of the figure 3 following Anthony Coule: the 3 following John Gray and company: the 3 following Thomas Wilson, and the 4 following Henry Trap, on debtor side of the said cash-book for the month of August, and of those on debtor side, of the said book for the months of September and October.

Q. What do the figures (on the creditor side of the said cash-book) which come just before the money lines shew? For instance, in the month of August on creditor side, of the figure 2 following Thomas Richards just before the 20/, and the 2 following John Fair, just before 10/.

A. The figure 2 following Thomas Richards, shews that his accompt stands in ledger, folio 2. And the 2 following John Fair, shews that his accompt stands also in the said ledger, folio 2.

The like is to be understood of the figures 2, 2, on creditor side of the cash book for September.

And of the figures 2, 2, 2 on creditor side of the cash book for October.

Q. What does the L. 57—3—10, at the foot of the debtor side of the cash book for the month of August shew?

A. It shews the total sum received during the month of August, and is produced by subtracting the 180/. in the first line from the L. 237—3—10. on the debtor of that accompt.

The like is to be understood of the L. 69—18—8, at the foot of September, and of the L. 97—8—7, at the foot of October.

And as those Sums shew the total receipt during each month, so the sum 30 /. on credit side of the cash book for August, the sum of 15/. for September, and the 62/. for October, shew the total payment during each of those months.

Q How is the balance (or rest of money) in cash found?

A. You must subtract the 30^l. (on credit of August's cash book) from the L. 237—3—10, on the debit side, and the remainder being L. 207—3—10, the balance, or rest of money, in cash, which placed under the 30^l. paid, and added to it, makes a just balance with the debtor side. See the cash book for the month of August.

You are to do in the like manner to find the balance, or rests of cash for the months of September and October. See the cash book for these months.

Q. What does the figure 3 against Richard Hughs (in the day book) and the 3 against Anthony Coule, and the other figures in the margin of the day book, shew?

A. They shew the folios of the ledger whereon the accompts of Richard Hughs, Anthony Coule, and the other accompts stand.

And also shew that those persons or accompts are debtors; as the figure 1 under the small line of the margin, and at the foot of each page of the day book, just against the words merchandize sold shews that the accompt of merchandize stands in the ledger, on folio 1, and is creditor.

Q. What do the figures in the ledger coming just before the money lines on debtor side, shew?

A. As the words of each line on the debtor side of said ledger, immediately following the word to, shews what accompts or persons are to be credited, or counterparted, so those figures shew on what folios in the ledger those accompts or persons are to be found.

Q. What does the figures coming just before the money lines on the creditor side of the ledger shew?

A. As the words in each line on creditor side of the said ledger, immediately following the word by, shew what accompts or persons are debited or counterparted, so those figures shew on what folios in the ledger those accompts or persons are to be found.

Q. How must I enter the goods I buy?

A. You must enter them in a bought book: as for instance.

Merchandize debtor to persons.

Bought

Of (suppose) Richard Thomas, viz.

46 ells linnen, at 3s	}	L. 6—18—0
per ell — —	}	
52 ells ditto, at 4s	}	10—08—0
per ell — —	}	
		—————L. 17—6—0

This article (and others of the like nature) must be posted in your ledger, to the credit of the accompt of the persons of whom bought. here Richard Thomas: and the total of each page in the bought book, must be posted in the said ledger to the debit of accompt of merchandize.

Q. I have been told that a good method of book-keeping will shew the owner of the books, or others concerned, these following necessary (and many other) particulars, viz.

Concerning merchandize.

No. 1. What goods (during the whole, or any time of the accompt) have been bought, brought into charge, when, of whom, and at what prices.

2. What goods (as above) have been sold, issued out of the charge, when, to whom, and at what prices.

3. The whole quantity bought and sold, and the profit, or loss, arising on those so disposed of.

Concerning cash or money.

4. What sums of money have been received (as above) to whom, and on whose account. Also whether in part or in full.

5. What sum total has been received and paid (during the whole, or during any time as above, and consequently the sum resting in cash.

Concerning persons with whom I deal.

6. For what sums they stand indebted, from what dates, and for what.

7. For what sums I stand indebted to them, from what dates, and for what.

8. Whether any balance or remainder, be due from them to me, or from me to them, and what sum.

Concerning my expences.

9. What expence I have been at (during the time of the accompt, or any part of it) and such expence considered and allowed; then what neat gain or loss has attended.

Concerning my stock.

10. What stock I began with, and what my present stock is, and what particulars composed each.

Now I desire you to shew me how this method will answer all these particulars.

A. Concerning merchandize, your bought book will shew you the particular demands of numb. 1.

And your day book those in number 2.

The debtor side of accompt of merchandize in your ledger will shew the whole quantity bought, and its creditor side the whole quantity sold, and the same accompt shews you also the profit and loss arising on those you have disposed of. See the accompts of merchandize in ledger, folio 1. thus the demands of number 3. are shewn.

Concerning cash or money, the debtor side of your cash book answers the demands in number 4. and the creditor side of the said book shews the demands in number 5. and consequently those in number 6. by comparing the debtor and creditor sides.

The creditor side also of the said book, shews the balance (or rest that should be found) in cash.

Concerning persons with whom you deal.

The debtor side of their accompts shew the demands of numb. 6. and the creditor sides those of numb. 7.

And consequently their accompts compared in debtor and creditor, shew the demands of number 8.

Concerning your expences.

The accompt of expences in your ledger shews your expences, as in number 9. and the accompt of profit and loss, will shew the neat gain or loss.

Concerning your stock.

The accompt of stock in your ledger shews what you began with, and the accompt of balance shews your present stock, and of what particulars it consists, and answers the demands in number 10.

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

No.	1 Farthing.				2 Farthings.				3 Farthings.			
	l.	s.	d.	q.	l.	s.	d.	q.	l.	s.	d.	q.
1	0	0	0	1	0	0	0	2	0	0	0	3
2	0	0	0	2	0	0	1	0	0	0	1	2
3	0	0	0	3	0	0	1	2	0	0	2	1
4	0	0	1	0	0	0	2	0	0	0	3	0
5	0	0	1	1	0	0	2	2	0	0	3	3
6	0	0	1	2	0	0	3	0	0	0	4	2
7	0	0	1	3	0	0	3	2	0	0	5	1
8	0	0	2	0	0	0	4	0	0	0	6	0
9	0	0	2	1	0	0	4	2	0	0	6	2
10	0	0	2	2	0	0	5	0	0	0	7	2
20	0	0	5	0	0	0	10	0	0	1	3	0
30	0	0	7	2	0	1	3	0	0	1	10	2
40	0	0	10	0	0	1	8	0	0	2	6	0
50	0	1	0	2	0	2	1	0	0	3	1	2
60	0	1	3	0	0	2	6	0	0	3	9	0
70	0	1	5	2	0	2	11	0	0	4	4	2
80	0	1	8	0	0	3	4	0	0	5	0	0
90	0	1	10	2	0	3	9	0	0	5	7	2
100	0	2	1	0	0	4	2	0	0	6	3	0
200	0	4	2	0	0	8	4	0	0	12	0	0
300	0	6	3	0	0	12	6	0	0	18	9	0
400	0	8	4	0	0	16	8	0	1	5	0	0
500	0	10	5	0	1	0	10	0	1	11	3	0
600	0	12	6	0	1	5	0	0	1	17	6	0
700	0	14	7	0	1	9	2	0	2	3	9	0
800	0	16	8	0	1	13	4	0	2	10	0	0
900	0	18	9	0	1	17	6	0	2	16	3	0
1000	1	0	10	0	2	1	8	0	3	2	6	0
2000	2	1	8	0	4	3	4	0	6	5	0	0
3000	3	2	6	0	6	5	0	0	9	7	6	0
4000	4	3	4	0	8	6	8	0	12	10	0	0
5000	5	4	2	0	10	8	4	0	15	12	6	0
6000	10	8	4	0	20	16	0	0	31	5	0	0

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.

No.	1 Penny			2 Pence.			3 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	1	0	0	2	0	0	3
2	0	0	2	0	0	4	0	0	6
3	0	0	3	0	0	6	0	0	9
4	0	0	4	0	0	8	0	1	0
5	0	0	5	0	0	10	0	1	3
6	0	0	6	0	1	2	0	1	6
7	0	0	7	0	1	4	0	1	9
8	0	0	8	0	1	6	0	2	0
9	0	0	9	0	1	8	0	2	3
10	0	0	10	0	1	8	0	2	6
20	0	1	8	0	3	4	0	5	0
30	0	2	6	0	5	0	0	7	6
40	0	3	4	0	6	8	0	10	0
50	0	4	2	0	8	4	0	12	6
60	0	5	0	0	10	0	0	15	0
70	0	5	10	0	11	8	0	17	6
80	0	6	8	0	13	4	1	0	0
98	0	7	6	0	15	0	1	2	6
100	0	8	4	0	16	8	1	5	0
200	0	16	8	1	13	4	2	10	0
300	1	5	0	2	10	0	3	15	0
400	1	13	4	2	6	8	5	0	0
500	2	1	8	3	3	4	6	5	0
600	2	10	0	4	0	0	7	10	0
700	2	18	4	5	16	8	8	15	0
800	3	6	8	6	13	4	10	0	0
900	3	15	0	7	10	0	11	5	0
1000	4	3	4	8	6	8	12	10	0
2000	8	6	8	16	13	4	25	0	0
3000	12	10	0	25	0	0	37	10	0
4000	16	13	4	33	6	8	50	0	0
5000	20	16	8	41	13	4	62	10	0
10000	41	13	4	83	6	0	125	0	0

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

No.	4 Pence			5 Pence.			6 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	4	0	0	5	0	0	6
2	0	0	8	0	0	10	0	1	0
3	0	1	0	0	1	3	0	1	6
4	0	1	4	0	1	8	0	2	0
5	0	1	8	0	2	1	0	2	6
6	0	2	0	0	2	6	0	3	0
7	0	2	4	0	2	11	0	3	6
8	0	2	8	0	3	4	0	4	0
9	0	3	0	0	3	9	0	4	6
10	0	3	4	0	4	2	0	5	0
20	0	6	8	0	8	4	0	10	0
30	0	10	0	0	12	6	0	15	0
40	0	13	4	0	16	8	1	0	0
50	0	16	8	1	0	10	1	5	0
60	1	0	0	1	5	0	1	10	0
70	1	3	4	1	9	2	1	15	0
80	1	6	8	1	13	4	2	0	0
90	1	10	0	1	17	6	2	5	0
100	1	13	4	2	1	8	2	10	0
200	3	6	8	4	3	4	5	0	0
300	5	0	0	6	5	0	7	10	0
400	6	13	4	8	6	8	10	0	0
500	8	6	8	10	8	4	12	10	0
600	10	0	0	12	10	0	15	0	0
700	11	13	4	14	11	8	17	10	0
800	13	6	8	16	13	4	20	0	0
900	15	0	0	18	15	0	22	10	0
1000	16	13	4	20	16	8	25	0	0
2000	23	6	8	41	13	4	50	0	0
3000	50	0	0	62	10	0	75	0	0
4000	66	13	4	83	6	0	100	0	0
5000	83	6	8	104	3	4	125	0	0
10000	166	13	0	208	6	0	250	0	0

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

No.	7 Pence.			8 Pence.			9 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	7	0	0	8	0	0	9
2	0	1	2	0	2	4	0	1	6
3	0	1	9	0	1	0	0	2	3
4	0	2	4	0	2	8	0	3	0
5	0	2	11	0	3	4	0	3	9
6	0	3	6	0	4	0	0	4	6
7	0	4	1	0	4	8	0	5	9
8	0	4	8	0	5	4	0	6	3
9	0	5	3	0	6	0	0	6	0
10	0	5	10	0	6	8	0	7	6
20	0	11	8	0	13	4	0	15	0
30	0	17	6	1	0	0	1	2	6
40	1	3	4	1	6	8	1	10	0
50	1	9	2	1	13	4	1	17	6
60	1	15	0	2	0	0	2	5	0
70	2	0	10	2	6	8	2	12	6
80	2	6	8	2	13	4	3	0	0
90	2	12	6	3	0	0	3	7	6
100	2	18	4	3	6	8	3	15	0
200	5	16	8	0	13	4	7	10	0
300	8	15	0	10	0	0	11	5	0
400	11	13	4	13	6	8	15	0	0
500	14	11	8	16	13	4	18	15	0
600	17	10	0	20	0	0	22	10	0
700	20	8	4	23	6	8	26	5	0
800	23	6	8	26	13	4	30	0	0
900	26	5	0	30	0	0	33	15	0
1000	29	3	4	33	6	8	37	10	0
2000	58	6	8	66	13	4	75	0	0
3000	80	10	0	100	0	0	122	10	0
4000	116	13	4	133	6	8	150	0	0
5000	145	16	8	166	13	4	187	10	0
10000	291	13	0	333	6	8	375	0	0

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.

No.	10 Pence.			11 Pence.		
	l.	s.	d.	l.	s.	d.
1	0	0	10	0	0	11
2	0	1	8	0	1	10
3	0	2	6	0	2	9
4	0	3	4	0	3	8
5	0	4	2	0	4	7
6	0	5	0	0	5	6
7	0	5	10	0	6	5
8	0	6	8	0	7	4
9	0	7	6	0	8	3
10	0	8	4	0	9	2
20	0	16	8	0	18	4
30	1	5	0	1	7	6
40	1	13	4	1	16	8
50	2	1	8	2	5	10
60	2	10	0	2	15	0
70	2	18	4	3	4	2
80	3	6	8	3	13	4
90	3	15	0	4	2	6
100	4	3	4	4	11	8
200	8	6	8	9	3	4
300	12	10	0	13	15	0
400	16	13	4	18	6	8
500	20	16	8	22	18	4
600	25	0	0	27	10	0
700	29	3	4	32	1	8
800	33	6	8	36	13	4
900	37	10	0	41	5	0
1000	41	13	4	45	16	8
2000	83	6	8	91	3	4
3000	125	0	0	137	10	0
4000	166	13	4	183	6	8
5000	208	6	8	229	3	4
10000	417	13	4	458	6	8

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

No.	1 Shilling		2 Shillings		3 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	1	0	2	0	3
2	0	2	0	4	0	6
3	0	3	0	6	0	9
4	0	4	0	8	0	12
5	0	5	0	10	0	15
6	0	6	0	12	1	18
7	0	7	0	14	1	1
8	0	8	0	16	1	4
9	0	9	0	18	1	7
10	0	10	1	0	1	10
20	1	0	2	0	3	0
30	1	10	3	0	4	10
40	2	0	4	0	6	0
50	2	10	5	0	7	10
60	3	0	6	0	0	0
70	3	10	7	0	10	10
80	4	0	8	0	12	0
90	4	10	9	0	13	10
100	5	0	10	0	15	0
200	10	0	20	0	30	0
300	15	0	30	0	45	0
400	20	0	40	0	60	0
500	25	0	50	0	75	0
600	30	0	60	0	90	0
700	35	0	70	0	105	0
800	40	0	80	0	120	0
900	45	0	90	0	135	0
1000	50	0	100	0	150	0
2000	100	0	200	0	300	0
3000	150	0	300	0	450	0
4000	200	0	400	0	600	0
5000	250	0	500	0	750	0
10000	500	0	1000	0	1500	0

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

No.	4 Shillings		5 Shillings		6 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	4	0	5	0	6
2	0	8	0	10	0	12
3	0	12	0	15	0	18
4	0	16	1	0	1	4
5	1	0	1	5	1	10
6	1	4	1	10	1	16
7	1	8	1	15	2	2
8	1	12	2	0	3	8
9	1	16	2	5	2	14
10	2	0	2	10	3	0
20	4	0	5	0	6	0
30	6	0	7	10	9	0
40	8	0	10	0	12	0
50	10	0	12	10	15	0
60	12	0	15	0	18	0
70	14	0	17	10	21	0
80	16	0	20	0	24	0
90	18	0	22	10	27	0
100	20	0	25	0	30	0
200	40	0	50	0	60	0
300	60	0	75	0	90	0
400	80	0	100	0	120	0
500	100	0	125	0	150	0
600	120	0	150	0	180	0
700	140	0	175	0	210	0
800	160	0	200	0	240	0
900	180	0	225	0	270	0
1000	200	0	250	0	300	0
2000	400	0	500	0	600	0
3000	600	0	750	0	900	0
4000	800	0	1000	0	1200	0
5000	1000	0	1250	0	1500	0
10000	2000	0	2500	0	3000	0

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

No.	7 Shillings		8 Shillings		9 Shillings		10 Shill.	
	l.	s.	l.	s.	l.	s.	l.	s.
1	0	7	0	8	0	9	0	10
2	0	14	0	16	0	18	1	0
3	1	1	1	4	1	7	1	10
4	1	8	1	12	1	16	2	0
5	1	15	2	0	2	5	2	10
6	2	2	2	8	2	14	3	0
7	2	9	2	16	3	3	3	10
8	2	16	3	4	3	11	4	0
9	3	3	3	12	4	1	4	10
10	3	10	4	0	4	10	5	0
20	7	0	8	0	9	0	10	0
30	10	10	12	0	13	10	15	0
40	14	0	16	0	18	0	20	0
50	17	10	20	0	22	10	25	0
60	21	0	24	0	27	0	30	0
70	24	10	28	0	31	10	35	0
80	28	0	32	0	36	0	40	0
90	31	10	36	0	40	10	45	0
100	35	0	40	0	45	0	50	0
200	70	0	80	0	90	0	100	0
300	105	0	120	0	135	0	150	0
400	140	0	160	0	180	0	200	0
500	175	0	200	0	225	0	250	0
600	210	0	240	0	270	0	300	0
700	245	0	280	0	315	0	350	0
800	280	0	320	0	360	0	400	0
900	315	0	360	0	405	0	450	0
1000	350	0	400	0	450	0	500	0
2000	700	0	800	0	900	0	1000	0
3000	1050	0	1200	0	1350	0	1500	0
4000	1400	0	1600	0	1800	0	2000	0
5000	1750	0	2000	0	2250	0	2500	0
10000	3500	0	4000	0	4500	0	5000	0

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

No.	1 Lib.	2 Lib.	3 Lib.	4 Lib.	5 Lib.
	l.	l.	l.	l.	l.
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25
6	6	12	18	24	30
7	7	14	21	28	35
8	8	16	24	32	40
9	9	18	27	36	45
10	10	20	30	40	50
20	20	40	60	80	100
30	30	60	90	120	150
40	40	80	120	160	200
50	50	100	150	200	250
60	60	120	180	240	300
70	70	140	210	280	350
80	80	160	240	320	400
90	90	180	270	360	450
100	100	200	300	400	500
200	200	400	600	800	1000
300	300	600	900	1200	1500
400	400	800	1200	1600	2000
500	500	1000	1500	2000	2500
600	600	1200	1800	2400	3000
700	700	1400	2100	2800	3500
800	800	1600	2400	3200	4000
900	900	1800	2700	3600	4500
1000	1000	2000	3000	4000	5000
2000	2000	4000	6000	8000	10000
3000	3000	6000	9000	12000	15000
4000	4000	8000	12000	16000	20000
5000	5000	10000	15000	20000	25000
10000	10000	20000	30000	40000	50000

The use of the foregoing Tables.

THese tables will serve for many uses; but that which they'll be most used about, as being most necessary, is to find out the true account of any number of ells, yards, or pounds, being sold for so much the ell, yard, or pound.

Example What will 5000 ells of linnen, at 11 pence the ell come to? To find this, First look to the price of the ell at the head of the table, then look down the side of the table for the number of ells, so you shall find in the last column but one in the table, and in the last line but one thereof that 5000 of any thing at 11 pence a piece, comes to 229*l.* 3*s.* 4*d.*

If you cannot find your price in one column or number of things in one line, you must take two or three parts thereof, and add them together.

Another example.

What will 1500 ells, at 9 $\frac{1}{2}$ come to?
In the table of nine pences you find,

	l.	s.	d.
For 1000 nine pences	37	10	0
For 500 nine pences	18	15	0
In the table of half pence,			
For 1000 half pence	2	1	8
For 500 half pence	1	0	10
	59	7	0

A Compleat
C O M P E N D I U M
O F
G E O G R A P H Y;

Describing all the
Empires, Kingdoms, and Dominions, &c.

In The
Whole W O R L D:

Shewing their
Bounds, Situation, Dimensions, Religions, Languages,
Commodities, Divisions, Rivers, Mountains, Lakes,
&c. &c.

To which is prefixed,

A Method of learning Geography without a Master, for
the Use of such grown Persons as have neglected
this useful Study in their Youth.

And also,

A Table shewing the Parallel of Latitude, the Breadth,
and the Length of the Day in every Climate.

In a most plain and easy Method.

How to learn Geography without the Directions of a Master.

THE person who desires to learn Geography, must have a set of maps, and after reading over the situation of each empire, &c. he should be very exact in finding out in the map, the several places mentioned therein; and thus by reading each article several times over, and comparing them with the maps, any grown person may soon know the most remarkable places in the world, their situation, boundaries, &c. and will insensibly, by degrees remember the names of them.

The following maps, which may be purchased at a small expence may be sufficient to instruct any reader, and render this treatise easy and intelligible, viz.

The World, Europe, Asia, Africa, North America, South America, England, Scotland and Ireland.

'Tis highly necessary, that the different parts of each of those maps should be distinguished by different colours, or at least by points or lines.

A Table shewing the Parallel of Latitude, the Breadth, and the Length of the Day in every Climate.

Climates	Climates between the Equator and the Polar Circles.						
	Paral.	Bdth	Day.	Clim	Paral.	Bdth	Day.
	D. M.	D. M.	H. M.		D. M.	D. M.	H. M.
1	8 34	8 34	12 30	13	59 59	1 33	18 30
2	16 43	8 09	13 00	4	62 18	1 19	19 00
3	24 11	7 28	3 30	15	62 25	1 07	19 30
4	30 47	6 36	14 00	16	63 23	0 52	20 00
5	36 30	5 41	4 30	17	64 16	0 53	20 30
6	41 22	4 52	15 00	18	64 55	0 39	21 00
7	45 29	4 07	15 30	9	65 25	0 30	21 30
8	49 01	3 32	16 00	20	65 47	0 22	22 00
9	51 58	2 57	16 30	21	66 06	0 19	22 30
10	54 29	2 31	17 00	22	66 20	0 14	23 00
11	56 37	2 12	7 30	23	66 28	0 08	23 30
12	58 26	1 49	8 00	24	66 31	0 03	24 00

Climates between the Polar Circles and the Poles.

1	7 31	1 00	1 Mo	4	78 20	5 00	4 Mo
2	9 31	2 00	2 Mo	5	84 00	5 40	5 Mo
3	13 21	3 50	3 Mo	6	90 00	6 00	6 Mo



A

Description of the World.

Geography is a science which teacheth the description of the earth. It differs from Cosmography as a part from the whole, and from Chronography and Topography as the whole from its parts.

The earth is a spherical body, which together with the water make up one globe of so perfect and exact a form, and so beautified and adorned by the God of nature, that from its elegancy and beauty, it was called by the Greeks, *Κοσμος*, and by the Latins, *Mundus*.

It is situated according to Ptolmy and Tycho, in the centre of the universe, but according to Copernicus, between the orbs of Mars and Venus; its substance so wonderful, as may well express that unlimited Power that performs infinitely beyond our imagination.

As to its magnitude, it is 21600 miles in circuit, (allowing according to the vulgar account 60 to a degree) its diameter 6874 miles; its semidiameter 3436; its superficies in square miles 148510584, and its solid content 169921796242 cubied miles.

For the better understanding all its parts, it may be divided into four general heads, viz. 1. Its imaginary parts; 2. its real parts; 3. in respect of its inhabitants; and, 4. its national parts.

1. Imaginary Parts.

The imaginary parts are only supposed for the clearer understanding of this science; they are, 1. Poles, 2. Circles, 3. Zones, and, 4. Climes.

1. The poles are the extrem points of the axis, which is supposed to pass through the centre of the earth, and on which it is supposed to move daily about. They answer to the poles of the heavens (as the other imaginary parts) being the farthest distant from the Equator; in number two, viz. 1. The Arctick, or north pole; and, 2. The Antarctick, or south pole.

2. The circles are divided into the greater and lesser: the greater divide the world into two equal parts; number four, viz. 1. The Equator, compassing the earth equally between, and farthest from the poles; when the sun is here, the days and nights are equal. 2. The Zodiac (in which is the Ecliptic) cutting the Equator obliquely, through which the sun passes in a year. These two are immoveable. 3. The Horizon, dividing the visible parts of the heavens from the invisible. 4. The Meridian, dividing the horizon into two equal parts: when the sun is here, it is noon. These two are moveable.

The lesser circles divide the world into two unequal parts; they are, 1. The Tropics, which terminate the sun's distance from the equator, being 23 degrees and a half from it: when the sun is here, it is either summer or winter. They are two, viz. of Cancer on the north, and of Capricorn on the south side of the equator. 2. The polar Circles, 66 degrees and one half of the Equator, and 23 and one half of the Poles; they are called the Arctic and Antarctic circles. 3. The Parallels, which are parallel to the Equator, set in maps to shew the latitude, as the meridian lines are to shew the longitude of places. [Note, That latitude is the distance from the equator, and longitude from the first meridian, made commonly at the Canary isles.]

3. The Zones are certain spaces of earth included between two lesser circles. In number five; viz. one torrid Zone, which lyes between the tropics; two temperate Zones, between the tropics and polar circles; and two frigid Zones, between the polar circles and the poles.

4. A Clime, or Climate, is a space of earth, between two parallels, in which the longest day is increased half an hour: as for example, in the first Clime, the longest

day is 12 hours and a half; in the second 13 hours; in the third, 13 hours and a half, &c. they are in number 24, that is from the equator to the polar circles.

2. Real Parts.

The real parts are such as have a real existence upon the superficies of the earth, divided into, 1. Water, and 2. Land.

1. Water is divided into, 1. Ocean, called a general collection or rendezvous of all waters, giving bounds to the regions of the earth. 2. Sea, a part of the Ocean encompassed with land, except one streight, such as the Mediterranean and Baltic. 3. Streight, a part of the ocean, restrained into narrow bounds, opening the way to a sea, as those of Magalonica and Gibraltar. 4. Lake, a large space of water, wholly encompassed with land, as Parima and Zaire. 5. Creek or Gulf, a crooked shore, thrusting forth as it were two arms to hold the sea, as those of Venice and Lepanto; as for Rivers, Ditches, Brooks, Fountains, &c. they need no description.

2. Land, divided into, 1. Continent, a vast tract of land where many nations are joined together, as Europe, Asia, &c. 2. Island, a space of land, wholly encompassed with sea, as Britain, Japan, &c. 3. Peninsula, a space of land, encompassed with sea, except one small part, as Morea, Malacca, &c. 4. Isthmus is that space of land that joins a peninsula to a continent. 5. Promontory, a mountain shooting itself into the sea, the end of which is called a Cape, as the Cape of Good Hope, Cape Verd, &c. As for Mountains, Rocks, Valleys, Fields, Forests, Woods, Plains, &c. they are all well known.

3. Inhabitants:

The earth is divided in respect of its inhabitants, into the right hand and left. 1. To poets the north was counted the right hand, and the south the left. 2. To Poets, the south is the right hand, and the north the left. 3. To Astronomers, the west is the right hand, and the east the left. And, 4. to Geographers, the east

is the right, and the west the left. The inhabitants themselves are distinguished; 1. In respect of their Situation. 2. According to their Shadows. 3. In respect to the position of the globe. And, 4. according to the countries.

1. Those according to their situations are divided into, 1. Antæci, which ly under the same meridian, and same longitude, but on different sides of the equator. 2. Periæci, which live on the same side of the equator, and the same latitude, but on opposite sides of the globe. 3. Antipodes, that live diametrically opposite to each other.

2. Those according to their shadows, are divided into, 1. Amphiscii, (called also Ascii) who live in the Torrid Zone, whose shadows tend both ways. 2. Periscii, which live in the Frigid Zones, whose shadows tend all ways. 3. Heteroscii, in the Temperate Zones, whose shadows tend but one way.

3. Those according to the position of the Globe, are distinguished into, 1. Such as live in a Right Sphere, (under the Equator) where the stars rise and set at right angles. 2. Such as live in an oblique sphere, (between the Equator and Poles) where the stars rise and set obliquely. 3. As live in a Parallel Sphere, (under the Poles) where the stars are always parallel to the Horizon.

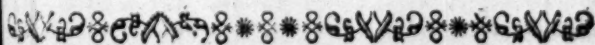
4. Those according to the countries, are distinguished into a great many nations and people, as French, Spaniards, Italians, Germans, &c. all which shall be more particularly treated of hereafter.

4. National Parts.

The earth in respect of its countries is divided into four parts, viz. 1. Europe. 2. Asia. 3. Africa, and, 4. America; to which may be added, 5. Terra borealis incognita, and, 6. Terra australis incognita. Those are divided into Empires, Kingdoms, Regions, Countries, Nations, &c. subdivided into Provinces, Governments, Prefectures, Circles, Territories, Districts, Counties, &c.

As for the Empires, there are six of special note at present, viz. Turkey, Russia, Persia, Tartary, India, and Abissinia; to these we may add three others that go by that name, viz. Germany, Morocco, Monomotopa. The description of these, with the kingdoms, inferior provinces, and sovereignties, is the main design of this compendium.

Countries are for the most part divided according to princes dominions (but not always so;) they are separated from each other, 1. Sometimes by sea, as Germany, and Denmark from Swedeland, 2. Sometimes by rivers, as Natolia from Turcumania, 3. Sometimes by mountains, as France from Spain, 4. Sometimes by walls, as China from Tartary, and 5. Sometimes divided only according to the towns and forts of the princes, as France from the Low Countries. Thus much for the world in general.



A Description of EUROPE.

THE continent of Europe is situated between 36 and 72 degrees of north latitude, and between 10 degrees west, and 65 degrees of eastern longitude, being bounded by the frozen ocean on the north; by Asia on the east; by the Mediterranean sea; which separates it from Africa on the south; and by the Atlantic ocean on the west.

This continent with its islands, is divided into three grand divisions, viz. the northern, containing Russia, or Moscovy, Sweden, Denmark, and Norway, Great Britain and its islands, Iceland, Greenland and the islands of the Baltic.

The middle division consists of Poland, Germany, and the adjoining hereditary dominions of the house of Austria, the Low Countries, or Netherlands, France, and its conquests on the Rhine.

The southern division contains Turkey in Europe, the tributary provinces of Moldavia, Walachia, the Crime and lesser Tartary, Switzerland and their allies,

Italy, Spain, Portugal, and the islands in the Mediterranean.

Russia, or Moscovy, contains a very large part of Europe, but though the north is but little inhabited, as producing few of the necessaries of life, yet many of the middle and southern provinces are as fruitful as any in Europe, producing every species of corn and fruits which do not require a very warm climate. The inhabitants were civilized, and from Barbarians, were in some measure, made a warlike and industrious people, by the conduct and example of Peter the Great. But they have not yet learned to trade much in their own bottoms, their goods being exported in foreign shipping; from which also they receive the produce of the southern countries of Europe. Our Russian merchants export thither coarse woollen cloths, long ells, worsted, stuffs, tin, and tobacco; and from thence import hemp, flax, coarse linnen, linnen yarn, Russian leather, furs, tallow, iron, and pot-ashes. The dominions of the Russian Empire extend far into Asia, and even reach to the pacific ocean, being in length from east to west upwards of 3000 miles, and 1500 in breadth from north to south. The government is arbitrary and despotic, and their religion that of the Greek Church.

Sweden is a cold country, encumbered with barren rocks and mountains, and a great part of the year covered with snow; it has few navigable rivers, but a bundance of torrents, which running precipitately from their rocks and mountains, after a short course run into the Baltic sea, which is frozen up four or five months in the year. The country is filled with great lakes and marches; Lapland and the northern part produce scarce any vegetables, but between the mountains there are fruitful valleys. The riches of this country chiefly consists in their mines of silver, copper and iron. They export from Sweden hardware, pitch, tar, rosin, matts, deals, and wooden ware; and import thither silks, stuffs, wine, brandy, sugar, spices, tobacco, linnen, paper, and haberdashery wares. Their trade with England has been hitherto most advantageous, the English taking the produce and manufactures of the country.

try, and giving them near two thirds of silver in return; but the encouragement now given for importing iron from New England, must put a stop to a commerce so disadvantageous to us. The inhabitants are protestants of the Lutheran persuasion.

Denmark consists of Jutland, the islands of Zealand and Funen, and the little islands about them. The peninsula of Jutland was antiently called the Cimbrian Chersonese, or the peninsula of the Cimbri. The country is generally flat, barren, and sandy; and the air is commonly thick and foggy, occasioned by the seas which almost surround it, and by the numerous lakes in the heart of the country; however, in some parts there is plenty of corn and pasturage. Its chief commodities are fish, furniture for ships, ox hides, tallow, fir, wainscot, &c. The longest day is seventeen hours and an half, and the shortest eight and an half. Their kings have been sometimes hereditary, and at others elective; and sometimes limited, and at others absolute, as they have been ever since the year 1660: when the peasants groaning under the oppressions of the nobility and gentry, agreed to make the crown absolute and hereditary; they were joined by the clergy, and the king having assembled the nobility and gentry in a garrisoned town, in a manner compelled them to resign their liberties. Their religion is Lutheran, as that of Norway, which is subject to Denmark, and the church lands being seized by the government at the reformation, the clergy depend on the state for their subsistence.

Norway is extremely cold and barren, and on that account is but thinly inhabited. The poor people dry their stock-fish, and use it instead of bread. Their chief commodities are stock-fish, furs, train oil, pitch, masts, staves, and deal boards, which they exchange for corn, wine, fruits, and the other necessaries, and conveniences of life.

As to the islands of Greenland and Iceland, they are cold miserable countries, and but thinly inhabited.

As we are most concerned in the history of Great Britain and Ireland, we shall give a more particular description of them, and place it in an article by itself.

We shall now treat of the middle division of Europe.

Poland is a large and level country, being 660 miles in length from north to south, and 560 from east to west. It is a flat level country, well watered by lakes and rivers, the land fruitful, and producing great quantities of wheat and rye; with rich meadows and pastures, which feed vast flocks and herds of cattle; it abounds with wax, pitch, salt, soap, rosin, flax, butter, cheese, corn, and rich furs. The government is an elective monarchy, but the king is so restrained by laws, that he has little else besides the shadow of royalty; and while the nobility and gentry are absolutely free, the people are in the most abject slavery, without property, or any thing they can call their own. The nobility and gentry, who are their landlords, or rather masters, are all as despotic as kings, and have the liberty of doing what mischief they please; they pay only an inconsiderable fine for taking away the life of a tenant; they seize and destroy at pleasure, so that, under the appearance of freedom, this seems to be the worst constitution on earth. As the whole nation is composed of absolute masters and abject slaves, the latter are only employed in cultivating the earth; all the manufactures necessary for the country are carried on by foreigners, and in general by the Jews, who are almost the only people who keep shops, and work at trades. The religion of the country is that of the Romish profession, but Jews and protestants are tolerated. The metropolis of Poland is Warsaw, a large and populous city.

Germany is generally on the north and east, a level country, consisting of barren sands, or marchy grounds; on the south is is encumbered with the mountains of the Alps, but in the middle there is a variety of hills, valleys, fruitful fields and meadows, more particularly along the banks of the Rhine, the Danube, &c. and is adorned with abundance of fine cities, castles, and palaces. This vast country is divided into ten circles, viz. three on the north, the circles of Upper and Lower Saxony, and that of Westphalia. Three on the south, the circles of Austria, Bavaria, and Swabia. Three about the middle, the circles of Franconia, of the Upper and Lower Rhine. And lastly the circle of Burgundy,

which formerly consisted of the dutchy of Burgundy, and the 17 provinces of the Netherlands ; but these last have been long severed from the empire. There are in Germany upwards of three hundred sovereign princes and states, most of them arbitrary within their own territories. The emperor is the fountain of honour, and disposes of almost all these places that are not hereditary, and which have a relation to the government of the whole empire. When an emperor dies, his successor is chosen by the nine electors ; but if a king of the Romans has been chosen in the preceeding reign, he succeeds of course. By the golden bull, the person elected ought to be a Christian prince, of German extraction, and 28 years of age. Before he is installed, he signs a capitulation presented him by the electors, princes, and states of the empire ; that he will not alienate the lands or revenues of the crown, introduce foreign forces, or employ foreigners in his service. In return, they are all obliged to assist him, and to join their forces in a time of common danger, and to maintain them at their own expence ; and, supposing them unanimous, they are able to raise and pay 500,000 men. The people are of various opinions in religion ; the principal sects are those of the Papists, Lutherans, and Calvinists ; and there are also Independents, Baptists, Quakers, the Moravian brethren, &c. but the emperor is always a Papist. Germany produces corn, wine, oil, bacon, beer, mum, flax, hemp, and fine timber ; also black cattle, sheep, and excellent horses. They have mines of iron, copper and silver, of which the silver mines of Hanover are of more value than all the other silver mines in Europe put together. They have also lead, salt, coal, vitriol, quicksilver, nitre, oaker, and sulphur. The people are excellent artists, and are remarkable for their honesty and sincerity, in their dealings. Vienna is the metropolis of the German empire, and the seat of the emperor.

The hereditary dominions of the house of Austria, are Bohemia, Hungary, Transilvania, Sclavonia, and Croatia.

The Netherlands are only about 300 miles long, and 100 broad ; these contain seventeen provinces, of which seven are possessed by the Dutch, and are called the U-

nited provinces, and the other are called the Austrian and French Netherlands. The names of the united provinces are Holland, Zealand, Friesland, Groningen, Overissel, Gelderland, Zutphen and Utrecht. The other ten provinces are Brabant, Flanders, Hainalt, Limburg, Luxemburg, Namur, Artois, the Cambresis, the Marquisate of Antwerp, the Lordship of Malines, or Mechlin. Of these the French possess the entire provinces of Artois and Cambray, part of Flanders, Hainalt, and Luxemburg; the Dutch the north of Brabant and Flanders, and all the rest are subject to the house of Austria.

France is one of the most flourishing kingdoms in Europe, but is not so populous as Germany. The soil is exceeding fertile, producing corn, wine, oil, silk and flax in great abundance, and is extremely well situated for a foreign trade, as it lies on the Atlantic ocean, the English channel, and the Mediterranean sea, and is watered by many large and navigable rivers. Their manufactures are of linnen, woollen, silk and lace, with which they trade to Spain, Italy, Turkey, and to the east and west Indies. The air is temperate, agreeable and healthful; the manners of the people are polite, and they are the most active and enterprising of any nation in Europe. They are under an absolute government, and profess the Romish religion, though they pay less regard to the pope than any other of his children: but, nevertheless, the protestants which are here very numerous, are seldom free from persecution.

Of the southern division of Europe, Turkey is the most easterly, and therefore to preserve the order in which we proceeded with the others, we shall begin with that first.

Turkey in Europe is a very extensive empire, comprehending some of the richest countries in this part of the world, extending upwards of 1000 miles from east to west, and 500 in breadth from north to south, with the numerous islands in the Archipelago, or Egean sea, but part of them are in Asia, where, as well as in Africa, their dominions are very considerable. In Europe the Turks are possessed of Rumania, Bulgaria, Servia, Bosnia, Ragusa, Wallachia, Moldavia, Bessarabia, Buchiac, and Oczakow, Tartary, Crim and Little Tartary

with Albania, Epirus, Macedonia, Thessaly, and all the ancient Greece. Situated as they are, in the centre of the continent, they might command the trade of the whole world: but this advantage they have lost by their indolence and inactivity, and the destructive maxims of their government. The goods imported from Turkey are raw silks, carpets, goats hair, mohair yarn, goats wool, cotton wool, and yarn, dainties, burdets, skins, cordovants, blue, red, and yellow; coffee, rhubarb, turpentine, opium, gum senega, terralemnia, china root, and abundance of other drugs; wine, oil, figs, raisins, dates, almonds, pistachio nuts, allom, vitriol, boxwood, bees wax, saffron, &c. Constantinople is the seat of the grand seignior, who is an absolute prince.

Italy, has a pure, temperate and healthful air, and the soil is in general exceeding rich, but the people are so broke with slavery, and harrassed with the tyrannies, oppressions, and impositions of their priests, that it is far from being sufficiently cultivated. It is in length from north west to south east 600 miles, and upwards, but the breadth very unequal, as it is said to resemble a boot; it is described, as having the top 400 miles broad from east to west; in the calf of the leg, or middle, it is about 120, and towards the instep 80 miles broad. In the north are the dutchies of Savoy, Piedmont, and Montferrat, subject to the king of Sardinia; the territory of Genoa, subject to the Genoese; the dutchies of Milan, Mantua, and the rest of Montferrat, subject to the house of Austria; the dukedom of Modena, subject to its own duke; and the large territories of Venice, subject to that republic. In the middle of Italy is the dukedom of Tuscany, subject to the duke of Lorrain; the pope's dominions, which almost surround Tuscany; and the state of Lucca. In the southern division is the kingdom of Naples, subject to the king of the two Sicilies. The people have a taste for the polite arts, and excel in architecture, statuary, music and painting. Our trade to Italy is carried on by separate merchants, who export broad cloths, long-ells, bays, druggets, calimancoes, samblots, and other stuffs; leather, tin, lead, fish, pepper, and east India goods; for which they in return im-

port raw and wrought silk, velvets, wine, oil, soap, olives, anchovies, and drugs for dying.

Switzerland is situated in the valleys between the Alps, the highest mountains in Europe, which, though lying between 45 and 48 degrees of north latitude, are for a great part of the year covered with snow, and the air is here much sharper than in countries that lye more to the north. From these mountains the largest rivers in Europe have their source, particularly the Rhine, the Rhone, the Danube, the Rufs, and the Inn. Here are also extensive lakes, those of Constance and Geneva are each sixty miles long. The soil produces some corn and wine, but as the fruits of the earth are frequently destroyed by storms, or cold rains, they, to prevent the poor from perishing, in plentiful years, lay up their corn in magazines. They breed and supply the neighbouring countries with abundance of cattle. They have some crape and linnen manufactures; but as almost all their cloathing is imported from abroad, they wisely rectify this inconvenience, by retrenching all superfluities. Switzerland is divided into three classes. Switzerland Proper, or the thirteen cantons, the subjects of Switzerland, or the conquered countries, and the allies of Switzerland, as the Grisons, the republic of Genoa, &c. Of the thirteen cantons some are protestant, and other popish cantons, but they all unite against a common enemy.

Spain enjoys a fine air, and generally serene settled weather, except in spring and autumn; the winter is moderate in the valleys, that for nine months in the year they have very little occasion for fires; but in June, July and August, the heats are very troublesome. The soil produces excellent wheat and barley; they have rich pastures, and their wool is the best in Europe; they abound in wine, oil, and silk, and in oranges, lemons, raisins, citrons, prunes, figs, capers, chefnuts, almonds, and pomegranates. they have valuable mines of copper, lead, allom, and sulphur, and the iron and steel of Bilcay is reckoned the best in Europe. But, notwithstanding so fine a country, and the vast treasure they have drained from their American mines, Spain is poor, and but thinly peopled; but their poverty may

be, in a great measure, ascribed to their pride and indolence. Their land is cultivated by foreigners, and they export great part of the produce of their country unwrought. Those of our merchants who trade to Spain, export broad cloaths, druggets, bays, long ells, calimancoes, and other stuffs, tin, lead, leather, fish, corn, hose, and haberdashery wares, and from thence import wine, oil, salt, and fruit. It is computed that from this trade England receives a greater balance than from that of any other nation, except the Portugueze.

Portugal is the most westerly kingdom in Europe, being about 300 miles long, and 100 broad; it is neither so hot nor so fruitful as Spain, and is encumbered with some of the most barren and unprofitable mountains; which, however, towards the bottom, being planted with vines, produce most excellent wine; and though the soil produces plenty of olives, as well as oranges and lemons, yet they have not corn enough for their subsistence. The foreign trade of the Portugueze consists either in the exportation of the produce of their own soil, or in the merchandize they receive from their settlements in Asia, Africa, and America. There is no country to which the English trade to greater advantage; for though we import the greatest part of their wine and fruit, they take our woollen manufactures in return. The inhabitants of Spain and Portugal are the most bigotted-Papists in Europe.



A Description of ASIA.

ASIA is situated between 25 and 148 degrees of eastern longitude, and between the equator, and 72 degrees of north latitude, being bounded by the frozen ocean on the north, by the Archipelago, the Euxine sea, which separates it from Europe on the north west; by the Red sea, which separates it from Africa on the south west; by the Indian ocean on the south; and by the Pacific ocean on the east.

This quarter of the world is thrown into three grand divisions, the first containing the empire of China, Chinesian Tartary, and the oriental islands on the east. The second, India, Usbec Tartary, Calmuc Tartary, and Siberia in the middle. And the third containing Persia, Arabia, Astracan, Circassian Tartary, and Turkey in Asia on the west.

China, including Chinesian Tartary, is divided from Siberia by the river Argun, and is 2000 miles in length from north to south, and 1000 in breadth from east to west. This vast empire is usually divided into 16 provinces, in which are computed 155 capital cities, 1312 of the second rank, and 2357 fortified towns. On the limits of China, there is a stone wall 1500 miles long, built to defend them against the incursions of the Tartars; but, notwithstanding this, about an hundred years ago they made a conquest of China. This is thought to be the most populous empire in the world. In the north and very far to the south, the air is very cold, occasioned by the height of the land. The chief produce of the country is silk, tea, china ware, gold dust, and japan work, of which England, Holland, Portugal, and France, import a great deal, sending them silver in return. Their religion is pagan, of which several sects are tolerated. Europeans complain of them as a very deceitful people.

Of all the eastern islands, those of Japan are the most famous; that called Japan, and which gives its name to all the rest, is about 600 miles long, and from 100 to 150 broad, besides which, there are several others of a considerable bigness, all subject to the emperor of Japan, who has fifty or sixty vassal princes under his dominions. The revenues of this emperor are said to be greater than those of any monarch upon earth. They trade with the Chinese, but no European nation are allowed this privilege except the Dutch, who carry to Japan spices, sugar, silks, woollen and linnen cloth; elephant's teeth, and haberdashery wares, and they receive in return gold, silver, fine copper, cabinets, and other Japan and lacquered wares.

The peninsula of India, or India Proper, is the most southern part of the second division of Asia, and is about

2000 miles from south to north, and in the broadest part 1500 from east to west. The northern part of this vast country, has a temperate healthful climate, but in the south it is extremely hot, especially when the winds blow in April and May. They have periodical rains, which, beginning in June last till October, which is the season for planting and sowing; but they have scarce any grain besides rice, except in the north. The produce of the continent of India, and what the Europeans export from thence, are chints, calicoes, muslins, pepper, and diamonds, which most nations purchase with silver, but the Dutch frequently barter spices for them. Their religion is paganism, and they all believe in the doctrine of transmigration. They are under the government of the great Mogul, an arbitrary and despotic prince, who is the sole landlord and proprietor as well as sovereign.

India beyond the Ganges extends near 2000 miles from north to south, but is of a very unequal breadth. It comprehends the kingdoms of Assem, Ava, Pegu, Laos, Siam, Cambodia, and Malacca; the last is in the possession of the Dutch, and the rest is governed by as many Indian princes. Great part of this country would be intolerably hot, were it not for the periodical rains, which, when the sun is vertical, overflow the country, and the breezes which come from the sea. The natives are of an olive colour, and their religion various sects of paganism. There is no country where there are such numbers of elephants. Our merchants here meet with gold and other precious stones, canes, opium, and such other articles as are usually found between the tropics, but they have no corn except rice.

Tartary, which is the same as the ancient Scythia, comprehended all the north of Europe and Asia, of which the Russians possess the principal part, and have given it the name of Siberia; and this part of their dominions extend even to the pacific ocean, and is 2000 miles in length, and 1500 in breadth. The Tartars of Astracan, and the Calmuc Tartars, are also subject to Moscow, those of Circassia and Dagistan, sometimes put themselves under the protection of the Turks, and Persians, and sometimes of the Russians. The Usbec Tartars are tributary to the sovereign of Persia. Nor-

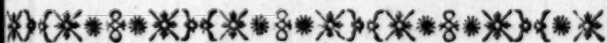
thern Tartary is a barren country, almost always covered with snow, in which are few houses or inhabitants. But in the south the Tartars enjoy a temperate climate, and a fruitful soil; yet they do not apply themselves to cultivate the land, but are continually moving from place to place to find pasture for their numerous flocks and herds.

Persia is the first country we shall mention in the third division of Asia. It is 1200 miles long, and almost as many broad. In the south, which lyes near the tropic of cancer, the air is so excessive hot, that for two or three months in the year it is dangerous to stir out at noon; for at that time the winds blowing over a vast tract of burning sands, are heated to such a degree as frequently to prove mortal. There is very little water, but what they have is managed with the greatest care, and conveyed through innumerable aqueducts to their towns, their fields and gardens. It is a country incumbered with barren mountains, but whose valleys are fruitful. They have a prodigious variety of the richest fruits, but scarce any corn except rice. The soil also produces abundance of medicinal drugs; and they have a fine breed of horses, but as the country is very sandy, and filled with large desarts, their camels and dromedaries are their most useful animals. One of the principal manufactures of Persia, is embroidery in gold and silver, on cloth, silk, or leather. Turkey-leather is chiefly brought from hence and carried thro' Turkey; as also those called Turkey carpets are really made here. But the principal manufacture of the country is that of silk, which they either work up alone or mix with cotton, camel or goats hair; their brocades, gold tissue, and gold velvet are admirably fine. They also manufacture camel hair stuffs, camblets, silk and worsted druggets. Their greatest men are merchants, but the Armenians and Indian banyans, who reside there, carry on the most distant foreign traffick. They take broad cloth from England, in exchange for their raw silk, and an act has lately passed here for carrying on the same trade through Russia. Our East India company have long traded thither by the way of Gombroon and the Persian gulph. The people are civil to strangers, but live in a luxurious

manner; their religion is that of the mahometan, and the sophy of Persia is an absolute prince.

Arabia joins on the east to Persia, and is a country of vast extent, governed by several princes, and divided into many states. The people generally live in tents, and move from place to place to find pasture and water for their cattle, great part of their country being a dry and barren desert.

Turkey, in Asia, contains Chaldea, now called Eyraca, Arabic, Mesopotamia, now Diarbeck, part of Assyria, now called Curdistan, Armenia, now Turcumania, part of Georgia, Mingrelia, and Circassia; part of Arabia, Syria, Palestine, Natalia, or Asia Minor. Some of which are as fine and fruitful countries as any in the world.



A Description of AFRICA.

AFRICA is joined to Asia by the narrow isthmus of Suez, and situated between 37 degrees north, and 35 degrees south latitude, and between 18 west, and 15 degrees of east longitude, bounded by the Mediterranean, which separates it from Europe on the north, by the isthmus of Suez, the Red Sea, and the eastern ocean, which divides it from Asia on the east; by the southern ocean on the south; and by the Atlantic ocean, which separates it from America on the west.

Africa is divided into ten divisions, Egypt, Abyssinia, or the Upper Ethiopia; the coast of Anian and Zanguebar; Monoemugi, Monomotopa, and Caffraria, or the Lower Ethiopia; Congo, Angola, and Guiney; Nigritia, or Negroland; Zaara; Biledulgerid; the ancient Numidia; the empire of Morocco; and the coast of Barbary.

Egypt is situated near the extremity of the Mediterranean, and is 600 miles in length from north to south, and from 100 to 200 in breadth from east to west. The air is here very hot and the soil extremely fertile occasioned by the overflowing of the Nile, without which, it

would be a barren waste, as it very seldom rains in this country. The lower Egypt is a triangular island, made by the Levant; and the two principal branches of the Nile. No place in the world is better furnished with corn, flesh, fish, fruits, and the most excellent garden stuff: but the people are very subject to have sore eyes. The Egyptians were the inventors of almost all arts, and there are still to be seen their antient pyramids, one of which is 700 feet high. Egypt is subject to the grand seignior, but his authority is extremely limited by the Egyptian princes.

Ethiopia superior, comprehending Abyssinia, Nubia, and Abex, joins to Egypt on the south. The river Nile rises from a lake almost in the middle of Abyssinia, which being swelled by the periodical rains, that fall annually between the tropics, overflow Egypt and all the low grounds which border on that river. The country produces plenty of corn, rice, wine, sugar, flax, and all the fruits proper to the climate; but the Turks being in possession of Abex, have shut up all the avenues to this country. Camels, horses, oxen, sheep and asses are their cattle. The Abyssines are perfectly black, but have neither flat noses nor thick lips. It was the king of this country who was called Prester John. They keep both the Christian and Jewish sabbath, and both baptize and circumcise their children, and even their female children.

The coast of Anian is a barren country, on the east of Abyssinia, subject to several African princes.

Zanguebar, is another country on the east of Asia, lying on the south of Anian, and contains the provinces of Majadoxa, Melinda, Quiloa, Mozambique and Sofala. The Portugueze have here made several settlements, and trade with the natives for gold, slaves, ivory, ostrich feathers, wax and drugs.

Caffraria, or the country of the Hottentots, lyes in the southermost part of Africa, and almost surrounds the inland country of Monomotopa, a part very little known: the Hottentots are a savage and nasty people. In this country the Dutch have built a town and castle near the most southern promontory, called the Cape of Good-Hope.

Congo and Angola lyes on the west of Caffraria. Thither the European merchants resort to purchase slaves. These countries are subject to several Negro princes; but as the Portugueze have a great many settlements on this coast, and in the inland country, they pretend to the dominion of the whole, and that these princes are their vassals; however the trade is open to all the nations that please to traffick with the natives. The chief town on this part of the continent is St. Salvador; but the capital of all the Portugueze settlements in this part of Africa, is the city of Loango, in a small island near the coast. The slaves of Angola, as they are not bred to labour, are generally agreed to be the laziest and most intractable of any of the slaves purchased on the coast. The Guiney coast has the Atlantic ocean on the south and west, and is divided into the grain coast, from its chiefly producing Guiney grain; the ivory coast, from the plenty of elephants teeth found there; the gold coast, from its furnishing much gold; and the slave coast, from its furnishing the greatest number of slaves. The English, Dutch, and French, have forts and factories on this coast; for the Portugueze, after having possessed the whole for upwards of 100 years, were drove from hence by the Dutch. The princes of the inland country being almost always at war, sell their prisoners to the Europeans for slaves.

Negroland is a fruitful country, producing rice, Guiney grain, and Indian corn; also cocoa nuts, plantains, yams, cassia, palm-trees, and tropical fruits. The Europeans trade thither for slaves, gold, ivory, bees-wax, gum-secreta, and other drugs.

Zaara is a barren desert country that produces scarcely any thing to sustain life; it has no towns, but the few inhabitants who know where to find springs of water, live in tents, and wander from one country to another, to find grass and water for their cattle. These people are of an olive complexion, their language is Arabic, and their religion mahometanism.

Biledulgerid lyes on the north of Zaara; it is partly subject to the Turks; and partly to the king of Morocco. The climate is very hot, but generally esteemed wholesome. The soil is but indifferent, and the

commodities are chiefly catt'e, corn, dates, and indigo. The religion of the inhabitants is that of mahometanism.

Morocco has the Mediterranean sea on the north, and the Atlantic ocean on the west, and is about 500 miles long, and 200 broad. It is a fine country, consisting of mountains and fruitful plains. The soil produces corn and the richest fruits. They send several thousand camels, horses, and mules, every year to Mecca and Negroland: to Mecca they carry fine woollen goods, Morocco skins, indigo, cochineal, and ostrich feathers, bringing back silks, muslins, calicoes, coffee, and drugs. By the caravans to Negroland they send salt, silk, and woollen goods; taking gold, ivory, and negro slaves in return. The emperor is an absolute despotic tyrant, but he has no ships of war except small pyratrical vessels.

Barbary, comprehending Algiers, Tunis, Tripoli, and Barca, lyes on the east of Morocco, and extends along the southern shore of the Mediterranean, as far as Egypt. The air of the country is temperate and healthful, the soil fruitful; its chief commodities are honey, wax, oil, flax, dates, almonds, hides, &c. The religion of this country, as well as Morocco, is mahometanism.



A Description of AMERICA.

America is situated between 80. degrees north, and 58 degrees south latitude, and between 35 and 145 degrees of west longitude. It is bounded on the east west and south by the ocean; but on the north some have imagined it joined to the other continent; whilst others, finding a great current flowing in Hudson's bay from the east, suppose that it is divided from the north by a large river, which has a communication with the ocean, on the other side of the continent. Others have imagined, that the north east of Siberia joins to the N. west of the unknown continent of America, west of

Hudson's bay; and that thus, instead of two continents, we have but one. If this supposition be true, it will account for the peopling of a country so far distant from that part of the world in which man was originally placed.

The principal part of America is at present under the dominion of Spain, Portugal, Great Britain, and France.

The Spanish dominions, which are by far the largest, comprehend Old and New Mexico, Florida, Terra Firma, Peru, Chili, Patagonia, Paragua, and la Plata, the country of the Amazons: and the Spanish islands, of which the most considerable are Cuba, Hispaniola, Porto Rico, and Trinidad.

The second division is subject to Portugal, and consists of the country of Brazil, extending from the river Amazon, under the equator, to the river La Plata, in 35 degrees south latitude, an extent of 3000 miles, but scarcely 200 miles broad.

The third grand division is subject to Great Britain, and lyes along the eastern coast of North America from 31 to 51 degrees of north latitude, and lying in the following order from north to south. The isle of Newfoundland, New Britain, Nova Scotia or New Scotland, New England, New York, the two Jerseys, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, and the islands of Jamaica, St. Christophers, Barbadoes &c.

The fourth division is claimed by the French, which, according to their maps, extends from the gulph of Mexico to the north of Canada, that is, from 28 to 52 degrees of north latitude, being 1500 miles from north to south, and very little less from east to west; these having the British dominions on the east, and New Mexico on the west, comprehending the greatest part of Canada and Florida, to which countries they have given the names of new France and Louisiana. The islands subject to France are those of Caen, and part of the island of Hispaniola, Martinico, Guadalupe, and several of the other Caribbee islands.

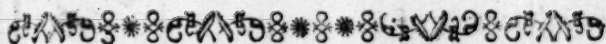
The Dutch are possessed of Surinam on the coast of Guiana, or Caribiana in South America, and others on

the north coast of Terra Firma, of which those of Gu-rastow, Arabia, and Bonnaire are the chief, and from hence they carry on a clandestine trade with the coasts of Spanish America.

Denmark is possessed of the island of St. Thomas, one of the Caribbees.

It would take up too much room to give a particular account of all the countries on this vast continent. We shall therefore conclude our account of this part of the earth with some general observations.

America, as a continent, is divided into two parts N. and S. by the isthmus of Darien. This isthmus is a neck of land, of about sixty miles broad, and three hundred in length, and filled with high mountains, on which the snow frequently lyes, though it is only between 8 and 10 degrees of north latitude; the wind, which great part of the year blows from thence into the south sea, is cool and refreshing; while on the other side, the air of the Atlantic ocean is excessive hot. America enjoys all the advantages of the other three parts of the globe being extremely fruitful, and having a fine air, except towards the north, where it is much colder than any part of Europe that lyes under the same latitude. The air is filled with an infinite number of birds, and the rivers with fish, and, where uncultivated, the land with trees; so that the principal difficulty in making a new settlement consists in clearing the ground. The British and French settlements chiefly produce tobacco, sugar, pepper, corn, rice, timber, iron; and from hence are imported skins, furs, fish, and some drugs. The Spanish settlements produce cochineal, and other drugs, with great quantities of gold and silver; but it is said that the gold mines of Mexico are now almost quite exhausted. The Portuguese settlements at Brazil in south America at present produce vast quantities of gold, and diamonds. And the Dutch settlements at Surinam furnish them with tobacco and sugar.



British Islands.

THE British islands, or the English dominions, lye in the western ocean, on the north of France and west of Denmark, Germany, and the Low Countries. Situated between the 8th and 20th, and 35th min of lon. and between the 50th and 59th deg of lat. Under this name are comprehended four distinct parts, besides the lesser isles, viz. 1. England, 2. Wales, 3. Scotland, and, 4. Ireland.

I. E N G L A N D.

The kingdom of England lyes on the south of Scotland, and north of France, from which it is divided by the channel, of a triangular form, incompassed on three sides with sea. In length from north to south, about 360 miles, and in breadth from east to west about 300, containing about 27 millions of acres.

The inhabitants are mostly of the reformed religion taught here in its purity (the divisions I forbear to mention) some few are papists; their language is a branch of the Teutonick, chiefly composed of old Saxon, Latin and French. Their chief commodities are corn, cattle, tin, copper, lead, iron, timber, coals, abundance of wool, stuffs, linnen, hides, tallow, butter, cheese, beer, &c. It is divided into six circuits, viz.

1. Northern circuit, 2. Midland circuit, 3. Oxford circuit, 4. Norfolk circuit, 5. Home circuit, 6. Western circuit.

Rivers of principal note are four, viz. 1. Thames, 2. Severn, 3. Trent, and, 4. Tweed.

Mountains of greatest account are three, viz. Ingleborough, 2. Pendle, and, 3. Pennegent.

Archbishopsricks 2. Bishopsricks 20. Universities 2.

An Account of the several Counties of England and Wales, with their Produce, Market-Towns, and Market-Days.

Note, m stands for Monday, tu for Tuesday, w for Wednesday, th for Thursday, f for Friday and s for Saturday.

Bedfordshire.

AN inland county, in Lincoln diocese, 73 miles in circumference, is a fruitful country, well stored with corn and cattle, especially in the north parts. It produces barley and wheat as good, if not the best in England.

Market-Towns.

Bedford, the shire-town, Tuesd. and Sat.	
Dunstable w	Shefford f
Woburn f	Biggleswalde tu
Amphill th	Potterton f
Leighton tu	Tuddington f
Luton m	

Berkshire.

An inland county in the diocese of Salisbury, and a pleasant country, 120 miles round, where the air is good and the soil fruitful. It yields plenty of corn, cattle, wild fowl, wool, and wood, especially oak.

Market-Towns.

Reading, the shire town, Saturday.	
Abingdon m and f	Newbury th
Windfor f	Faringdon tu
Wallinford tu and f	Wantage f
Maidenhead w	East Isley w
Hungerford w	Oakingham tu

Buckinghamshire or Bucks.

Another inland county in Lincoln diocese, 138 miles in circuit, is very plentiful both in corn and pasture, particularly the famous vale of Alesbury, which feeds an infinite number of sheep, yielding excellent wool. The Tame, Ouse, and Coln are its principal rivers.

Market-Towns.

Buckingham, the chief, Saturday.

Alesbury f	Beaconsfield th
High Wickham f	Chesham w
Colebrook w	Risborough f
Stoney Stratford f	Amersham tu
Oulney m	Newport Pagnel f
Marlow f	Ivingo f
Wendover th	Winslow th

Cambridgeshire.

An inland county, in the diocese of Ely, 130 miles in circumference, abounds in corn and pasture, fish, wild-fowl and saffron. 'Tis true the north part of it, called the isle of Ely, is full of marches, and subject to small inundations, which makes it unhealthful, and yield but little corn; but this defect is richly supplied with plenty of cattle, fish, and wild fowl. Cambridge is remarkable for a famous university, containing 12 colleges and 4 halls, and are as followeth.

Peter House	Founded in	1284. by Hugh de Ballham, bishop of Ely.
Corpus Christi, or Bennet col.		1346. by Henry of Monmouth, duke of Lancaster.
St. Andrew and Caius		1348. and so named from its founders.
King's college		1441. by king Henry VI.
Queen's college		1448. by Margaret, wife to Henry VI.
St. John's college		1497 by L. L. D. bp. of Ely.

Christ's college	} Founded in	{ 1506 by Margaret, countess of Richmond, mother of H.VII.
St John's college		{ 1506 by the same.
Magdalane col.		{ 1542. by E. Stafford, the last D. of Buckingham of that name.
Trinity college		{ 1546. by king Henry VIII.
Emanuel col.		{ 1684. by Sir Walter Mildman, chancellor of the exchequer.
Sidney Suffex col.	}	{ 1598. by Frances Sidney countess of Suffex

H A L L S.

Clare Hall	} Founded in	{ 1343. by Richard Badew.
Pembroke hall		{ 1347 by Mary de St. Paul, countess of Pembroke.
Trinity hall		{ 1353. by William Bateman, bp. of Norwich.
Katherine hall		{ 1459. by Robert Wood, chancellor of the university.

Market-Towns.

Cambridge, the chief, Sat.

Ely f	Merche f
Caxton tu	Roylton w
Newmarket tu	Wisbich f
Linton th	Soham f

Cheshire, or County of Chester.

A maritime county, in the diocese of Chester, 112 miles round. It yields more pasture than corn, and is for the most part level : its greatest hills being those that part it from Stafford and Derbyshire. There are in it several forests, particularly Delamere and Macclesfield forests : and so great a number of parks, that few gentlemen's country seats are without one.

There are also many heaths, in which both sheep and horses feed ; and some mossy plots, which make good turff to burn.

Its principal rivers are the Dee, which waters the S. W. parts, the Wever running through the middle, and the Mersey northward.

Cheese and salt are the chief product of this county, and both in great request all over England.

Market-Towns.

Chester, the chief, Wednesday and Saturday.

Namptwich f	Stockport f
Middlewich f	Sandwich th
Norwich f	Astringham tu
Macciesfield m	Malpas m
Congleton f	Knotsford f
Fordeſham w	

Cornwall.

A maritime county, in the diocese of Exeter, is the most western county of England, surrounded with the sea on the north, south and west, and parted from Devonshire, eastward by the Tamer, all but a slip of land: so that it is a perfect peninsula, 150 miles in circumference: but is none of the most fruitful parts of England. It is true, its valleys are full of corn and pasture, and the hills famous for their tin, and copper mines; and it abounds in wild towl, and the seas thereof in fish. It yields also plenty of samphire, eringo, fine slate and fine marble.

Market-Towns.

Launceſton, the chief, Saturday.

Leskard f	Truro w and f	Hellſton f
Leſtwithiel f	Bodmin f	Saltaſh tu
Catcheltord f	Foway f	St. Columb th
Wellſlow, or	Kellington w	Market-Jew th
Port Pigham f	St German f	Padſtow f
Grampond f	Newport f	Penzance th
Faſtlow f	Tregony f	Falmouth th
Penryn w, ſand f	St. Ives w and f	Stratton tu

Cumberland.

A maritime county in the north of England, and in the diocese of Chester and Carlisle, is bounded northward with Scotland, and westward with the Irish sea, and is 160 miles round. It yields plenty of corn, pasture, wild fowl, fish, coal pits, and mines of copper and lead.

Market-Towns.

Carlisle, the chief, Saturday

Cockermouth tu	Alston Moor f
Whitehaven th	Ireby th
Keswick f	Kirk Ofwald th
Penrith tu	Longtown th
Brampton tu	Ravenglass f
Holm f	Wigton tu
Egermont f	

Derbyshire.

An inland county northward in the diocese of Litchfield and Coventry, 130 miles in circuit, is a plentiful county of pasture, corn and wood. Here are also quarries of free stone, marble, mill, lime, whet stones, coal, lead and iron mines, crystal and alabaster.

The river Darwent, which glides through this county from north to south, and falls into the Trent, divides it into two parts, east and west.

Market-Towns.

Derby, the shire town, Friday.

Chesterfield f	Ashbourn f
Worksworth tu	Blackwell m
Bolsover f	Dronfield th
Alfreton m	Tiddeswall w

Devonshire.

A maritime county in the diocese of Exeter, 200 miles in circumference. It lyes in the west of England, bor-

ders upon Cornwall, and is watered on two sides with the sea, viz. north and south. The air is very good, and the soil for the most part fruitful; but there are both hills and woods. This country abounds chiefly in corn, pasture, wool, wild fowl and sea fish. There are also tin and lead mines. Its chief manufactures are kerseys, serges and lace.

Market-Towns.

Exeter, the chief, Wed. and Sat.

Barnstaple f	Topsham f	Dodbrood w
Dartmouth f	Axminster f	Hartland f
Honiton f	Autrey tu	Hatherly tu
Oakhampton f	Bampton f	Holdsworthy f
Plimpton f	Bow f	Kingsbridge f
Tavistock f	Chimleigh th	Kirton th
Tiverton tu	Cudleigh f	Modbury th
Plymouth m and th	Columpton f	Moreton f
Totnefs f	Combmartin f	Newton th
Ashburton f	Culliton th	
Biddiford tu	Torrington f	

Dorsetshire.

A maritime county upon the Channel, lyes east of Devonshire, in the diocese of Bristol, 150 miles in compass. It is a pleasant and fruitful county, yielding plenty of corn, cattle, pasture, wild fowl and fish; also abundance of hemp, and quarries of free stone and marble.

Market-Towns.

Dorchester, the capital, Sat.

Weymouth tu and f	Corfe Castle th	Cerne w
Malcomb Regis tu	Wareham f	Frampton th
and f	Cranborn w	Sherborn tu & f
Bridport f	Blandford f	Milton m
Bere w	Sturminster th	Windbourn f
Pool m and th	Abbotsbury th	Stalbridge f
Shaftesbury f		

Durham.

A maritime, northern county, commonly named the Bishoprick of Durham, 107 miles in circuit. The air is sharp, and the soil not very fruitful. The east side is the best, the south full of marshes, and the west full of rocks. The greatest advantage of this county consists in coal, iron and lead mines.

Market-Towns.

Durham, the capital, Sat.

Aukland th	Hartlepool m
Stockton f	Stainthorpe tu
Sunderland f	Bernard Castle w
Darlington m	

Essex.

A maritime county in the east part of England, and the diocese of London, called Essex from the East-Saxons, by whom it was inhabited. It is about 146 miles in compass. Here the air is temperate, but near the sea and Thames very moist and aqueous. The soil yields plenty of corn, cattle, and wool. Here is also abundance of fish and wild fowl. In the north parts saffron grows to admiration. And there are some parts, the soil of which is so rank, that after three crops of saffron, it yields good barley for near 20 years together, without compost.

This county is watered by a great number of rivers besides the Thames that parts it from Kent, the Stour from Suffolk, the Lea from Middlesex, and the little Stour from Hartfordshire; here's the Coln, Chelmer, Crouch, Roding, and many other rivers, all yielding plenty and variety of fish.

Market-Towns.

Colchester, the county town, Sat.

Harwich tu	Hatfield f	Rumford w
Barking f	Witham tu	Ingerstone w
Maldon f	Chelmsford f	Walden f

Billericay tu	Burntwood th	Dunmore f
Cogeshall f	Grays th	Halstead f
Horndon f	Raleigh f	Waltham Abbey tu
Manningtree tu	Thaxted f	Sudbury f
Epping th and f	Braintree w	

Glocestershire.

An inland county in the diocese of Gloucester, 138 miles round, is a fine, fruitful and delightful country. The hills on the east side, called Cotswold, are covered with flocks of sheep, whose wool is called the finest in Britain. The middle parts are level, and watered by the Severn, which contributes much to their fertility. Westward is the antient forest of Dean formerly 20 miles long: but now much less; the iron mines having consumed a great part of it.

Besides the Severn, which crosses this county from north to south, here is the Avon that parts it from Somersetshire, the Wye that partly divides it from Monmouthshire, besides the Stroud and the Isis; all very fishy rivers; the Severn yielding great plenty of salmon.

Formerly the vales of this county were full of vineyards, which have been since turned into orchards, yielding plenty of apples for cyder.

In short, this county abounds in corn, wool, wood, iron, cyder and salmon. Among its manufactures, the woollen is most considerable. Here is also made great quantity of good cheese.

Market-Towns.

Glocester, the shire town, Wed. and Sat.

Gloucester m	Fairford th	Northleech w
and f	Tewksbury f	Blackley w
Burley th	Camden w	Newnham f
Stroud f	Cheltenham f	Letchlade tu
Stewert f	Sudbury th	Panfwick tu
Stow th	Tedbury w	Wickware m
Thornbury f	Winchcomb f	Wotton f
Stratfield tu	Morton f	Dean m

Hampshire, Hants, or Southampton.

This is a maritime county, on St. George's Channel, between Suffex East and Dorset West, in the diocese of Winchester 100 miles in circuit. It is a pleasant and fruitful county, yielding plenty of corn, grass, wool, wood and iron; and particularly noted for the excellency of its honey and bacon.

On the west side it is watered by the Avon and Stour, which meet near the sea; and on the east by the Test and the Itchin, that join near Southampton.

Market-Towns.

Southampton, the shire town, Tuesd. and Frid.

Winchester w and f

Portsmouth th and f

Andover f

Limington f

Petersfield f

Stockbridge th

Whitechurch f

Newport w and f

Alton f

Farham th

Basingstock w

Kingsclear tu

Ringwood w

Odiham f

Rumsey f

Waltham tu

Alelton th

Hartfordshire.

An inland county, in the diocese of London and Lincoln, 130 miles round, is a fine delightful place; and has more gentlemens parks than an other county. Here the inhabitants breathe a wholesome air, and the soil yields plenty of corn, grass and wood. The Lea and Coln are its principal rivers; wheat, barley, and malt, its chief commodities, and, with Bedfordshire, the best in Great Britain. The plowmen and farmers are outdone by none.

Market-Towns.

Hartford, is the county-town, Saturday.

St. Albans f	Baldock th
Barnet m	Hitchin tu
Ware tu	Hodson th
Barkhamstead m	Stevenage f
Rickmansworth f	Thring f
Hatfield th	Watford tu
Buntingford m	Hempstead th
Standon f	

Herefordshire.

An inland county in Hereford diocese, towards Wales; in circuit 120 miles, abounds in all things necessary for life, particularly corn, wool, salmon, and cyder. Its wool and cyder are counted the best in great Britain; and yet their cyder is made of the red streak apple, scarce eatable, but growing no where so well as in this county.

Market-Towns.

Hereford, is the capital, Wed. Frid. Sat.

Lempster f	Pembridge tu
Weobly th	Ledbury tu
Kyniton w	Bromyard m
Rofs th	

Huntingdonshire.

An inland county in the diocese of Lincoln, by some nicknamed Willowshire, for its plenty of willow is 67 miles round, was formerly a very woody county, and consequently most proper for hunting, whence the name of Huntingdonshire. Now it is open and marshy on the N. E. but plentiful of pasture. In general it is a pleasant county, diversified with hills, and yielding plenty of corn and cattle. Its principal river is the Ouse; now made navigable, whose beautiful meadows, with such multitudes of cattle upon them are well worth seeing.

Market-Towns.

Huntingdon, the chief, Saturday.

St. Ives m
 Kimbleton f
 St. Neots th

Ramsey w
 Yaxley tu

Kent.

A maritime county, at the east part of the channel, in the diocese of Canterbury and Rochester, is 160 miles in compass. According to the different nature of its soil, 'tis divided into three parts, viz. the Downs, which have health without wealth; the Marshy Parts, that have wealth without health; and the Middle that has health and wealth. One part of this county is wood, another corn, and the third pasture. Its soil yields plenty of wheat in some places, in some barley, and in others excellent cherries and pippins.

Market-Towns.

Canterbury (famous for its cathedral) is the capital
 Wednesday and Saturday.

Rochester f	Cranbrook f	Sevenaok f
Maidstone th	Cray w	Tenterden f
Dover w and f	Dartford f	Malling f
Sandwich w and f	Eltham m	Milton f
Romney th	Faversham w and f	Tunbridge f
Smarden f	Folkstone th	Westram w
Hithe f	Gravesend w and f	Woolwich f
Bromly th	Lenham tu	Wrotham tu
Wye th	Lidd th	Ashford f

Suffex.

A maritime county upon the Channel, with Kent the E. and Hampshire W. in Chichester diocese, is 100 miles round. Its Downs, near the sea, are charming and its vallies (called the wild of Suffex) very plentiful of oats especially. The forests are barren, but the

parts yields abundance of iron, which has occasioned a vast consumption of wood. Here the roads are so deep in winter, that in some places, coaches must be drawn with oxen. This country is well watered, but with rivers of no long course. Arun is the principal. A Sussex carp, an Arundel mullet, an Amerly trout, and a Chichester lobster, are much admired. And so is the white ear, a bird as good as a French Ortolan. Its principal manufactures are iron, guns and glass.

Market-Towns.

Chichester, is the chief, Wednes. and Sat.

East Grinstead th	Petworth w
Hastings w and f	Steyning w
Rye w and f	Battle th
Arundel w and f	Hailham f
Horsham f	Bright Hemston tu
Midhurst th	Cuckfield f
Lewes f	

Lancashire.

A maritime county in the diocese of Chester, bounded with the Irish sea, is 170 miles in circuit; of all maritime counties the least subject to fogs, and the inhabitants generally strong bodied. The soil is partly upon the level, yielding good wheat and barley, and the bottom of the hills excellent oats. But the hilly parts eastward are generally stony and barren.

Market-Towns.

Lancaster, is the county town, Saturday.

Clithero f	Blackbourn m	Haslingdon w
Liverpool f	Cartmel m	Garstang th
Preston w, f & f	Coln w	Kirkham tu
Wigan m and f	Bury th	Hornby m
Manchester f	Charnley f	Howstead m
Warrington w	Dalton f	Ormskirk tu
Olverston th	Roachdale tu	Poulton m
Bolton m	Hawkshead m	Perfot tu

Leicestershire.

An inland county, in the diocese of Lincoln, is 96 miles in circuit, enjoys a good air, and abounds in corn and pasture, and is particularly famous for pease and beans. Pasture land is so good, that here are many farms let between 500 and 2000/ a year. The sheep and horses which are sent in such numbers to London, are undoubtedly the largest in England. It yields plenty of coal. Its principal rivers are the Stour, Reek, and Swift.

Market-Towns.

Leicester is the county town, saturday,

Ashby de la zouch f	Lutterworth th
Rosworth w	Longborough th
Harborough tu	Milton tu
Hallaton th	Mountsorrel m
Hinkley m	Waltham w and th
Balsdon f	

Lincolnshire.

A maritime county, in the diocese of Lincoln, bounded east with the German sea, is 180 miles in circuit. The north and west parts are the most fruitful; the east and south marchy, yet abound in fish and wild fowl.

Market-Towns.

Lincoln is the capital, saturday.

Boston w and f	Binbrook w	Dunnington f
Grantham f	Alford tu	Falkingham th
Stamford m and f	Burton m	Holbeck th
Grimsby w	Barton m	Horncastle f
Gainsborough tu	Kirton th	Louth w and f
Bullingbrock tu	Bourn f	Sleeford m
Spalding tu	Tattershall f	Spilsby m
Stanton m	Wainfleet f	Salisbury m
Burgh th		

Middlesex.

An inland county, in the diocese of London, the metropolis of Great Britain, is 81 miles in circumference. It has a sweet wholesome air, and fertile soil, much improved by the compost (or dung) of London. The Thames that waters it, and separates it from Surrey, is the principal river.

Market-Towns.

LONDON, the metropolis, hath markets for every day in the week.

Westminster, m, w and f

Brentford th

Stains f

Uxbridge th

Enfield f

Edgworth th

Monmouthshire.

A county in the diocese of Landaff, formerly Welch, but now reckoned among the counties of England. It lies westward on the borders of Wales, watered on the south by the Severn, which falls there into the sea. It is 80 miles in circuit; woody and hilly, but very plentiful; to which the rivers Uske and Wye. Monnow and Rumney, contribute very much. The Usk and Wye yield plenty of salmon and trout.

Market-Towns.

Monmouth, the principal, saturday.

Abergavenny th

Caerleon tu

Chepstow f

Newport f

Pontpool f

Uske m and f

Norfolk.

A maritime county, in Norwich diocese, bounded on the north and east with the German sea, is 140 miles in circumference. The soil is in some places fat, in some sandy, and in others heavy. Towards the sea it is level, and yields plenty of corn. In other parts you have woods and heaths. Those feed abundance of cattle,

and these infinite numbers of sheep and rabbits. Its principal rivers are the Ouse, Waveney, Yare, and Thyrn: Its commodities, corn, wool, honey, and saffron, the best growing near Walsingham: its manufactures, stuffs and stockings. The neighbouring sea swarms with her-
ing. Jet and amber are sometimes found upon the coast. From Norwich to Yarmouth, about 30 miles, is all rich meadow; upon which most of the Scots runts graze, till they are fat, and then make excellent beef.

Market-Towns.

Norwich, the capital, wed. Frid. and Sat.

Lynn tu and f	Downham f	Comer f
Yarmouth f	Walsingham w	Diss f
Thetford f	Windham f	Harleston w
Attleborough th	Ropeham f	Herling tu
Aletham f	Snatham f	Holt f
Buckingham f	Falkenham th	Wotton w
Burnham f	Foulsham th	Worsted f
Dearham f	Hingsham f	Seby every second m
Walsingham f	Causton tu	Swatham f

Northamptonshire.

An inland county, in Peterborough diocese, 120 miles in circuit, is one of the best counties in England, has a healthful air, rich, fruitful soil, abundance of inhabitants, and claims the honour of having more noblemens seats than any other county. It abounds in corn and cattle, wood, and salt petre. Its principal rivers are the Ouse, the Welland, and the Nen, all rising in this county.

Market-Towns.

Northampton, the shire town, Saturday.

Peterborough f	Rothwell m
Brackley w	Kittering f
Daventry w	Wellingborough w
Oundle f	Trapstone tu
Towcester f	Cliff tu

Northumberland

A maritime county, in Durham diocese, and bordering upon Scotland, is 160 miles in circumference, bounded by the sea eastward, and on the west, by the impassible mountains of Stainmore. It has a keen piercing air; is not the most fruitful, but some parts of it are very good, especially towards the sea. Here are several lead and coal mines; a multitude of monumental antiquities, with wild fowl and fish in abundance.

Market-Towns.

Newcastle, the chief town, Saturday.	
Berwick f	Hexham tu
Alnwick f	Wooler th
Morpeth w	Belford tu
Rothbury th	Warkworth th

Nottinghamshire.

An inland county in the diocese of York, 90 miles in circuit, has a wholesome air, and different sorts of soil; for the southeast parts are fertile, the western woody, and yield abundance of pit coal. Here is the famous forest of Sherwood. The Trent and the Eddle are its prime rivers. The first parts this county from Lincolnshire.

Market-Towns.

Nottingham, the county town, wed. fr. and sat.	
Newark w	Bingham th
Redford w	Worlpop w
Mansfield th	Tuxford in the
Southwell f	Clay m

Oxfordshire.

An inland county, in Oxford diocese, 130 miles round, has a sweet healthful air, a good soil for corn and fruit, and rich in pasture. Besides the Thames, composed of

Tame and Isis, that water this country, here is the Chervel, Windrush, Evenlode, &c. Oxford is remarkable for a famous university, containing 20 colleges, and 5 halls, which are as follows,

University col	} Founded in	872. by the Saxon King Alfred.
Baliol		1262. by John Baliol, King of Scotland
Merton		1274. by Walter de Merton, bp. of Rochester.
Exeter		1316. by Walter Stapleton, bp. of Exeter.
Oriel		1325. by King Edward II
Queen's		1340. by Robert Eglesford, B.D.
New		1375. by William of Wickham, bp. of Winchester.
Lincoln		1427. by Richard Fleeming and Thomas Rotheram, bps. of Lincoln.
All Souls		1437. by Henry Chicheley, Arch-bp. of Canterbury
Magdalen		1459. by William of Wainfleet, bp. of Winchester.
Brazen-Nose		1511. by William Smith, bp. of Lincoln, and Sir Richard Sutton, Knt.
Corpus-Christi		1516. by Richard Fox. bp. of Winchester.
Christ-Church		1549. by King Henry VIII.
Trinity		1555. by Sir Thomas Pope.
St. John's		1557. by Sir Thomas White, Lord Mayor of London.
Jesus		1571 by Queen Elizabeth.
Wadham		1609. by Nicholas Wadham, Esq;
Pembroke		1620 by Thomas Tesdale, Esq; and Richard Whitchurch, B.D.
Worcester		1700. by Sir Thomas Cooke.
Hartford		1740 by Dr. Newton.

Halls.

St. Edmond's	} belonging to	Queen's	} College.
St. Alban's		Merton	
St. Mary's		Oriel	
New-Inn		New	
Magdalen		Magdalen	

Market-Towns.

Oxford, the capital city, Wed. and Sat.

Woodstock tu	Whitney th	Bicester f
Banbury tu	Watlington f	Bampton w
Burford f	Chipping Norton f	Tame tu
Henley th	Deddington f	Charlbury f

Rutlandshire.

An inland county, in Peterborough diocese, 40 miles in circuit. It yields plenty of corn and cattle, and feeds great numbers of sheep; the wool whereof (like the soil) is reddish: from whence this county is called Rutland; that is Red-land. Here is also plenty of wood, and several rivers; the principal of which are the Welland and the Wash.

Market-Towns.

Oakhampton f | Upingham w

Shropshire.

An inland county, in the diocese of Hereford and Litchfield, bordering upon Wales, is 135 miles in compass. Here the inhabitants breathe a good air, and have the benefit of a fruitful soil, though hilly on the south and west. It yields plenty of wheat and barley, pit coal, wood, and Iron. The rivers are the Roden, Teme, and the Severn; which last runs through the county.

Market-Towns.

Shrewsbury, the county town, Wed. Th. Sat.		
Bishopscastle f	Elismere tu	Wen th
Bridgnorth f	Whitchurch f	Church-stretton tu
Ludlow m	Newport f	Oswestry m
Wenlock m	Drayton w	Shipton tu

Somersetshire.

A maritime county in the west of England, and diocese of Bath and Wells 240 miles round, is one of the largest counties; plentiful of corn and pasture, most pleasant in the summer, tho' but indifferent for travellers in the winter. Whence the proverb, Bad for the rider, but good for the abider. Beside the Severn, which runs into the sea, there is the Avon, Frome, Parret, Tor, and Tone. The oxen in this county are as large as those in Lincolnshire, and the meat much preferable. This county yields also lead and copper, lapis calaminaris, crystal that comes near a diamond, and wood for dyers. Its chief manufactures are woollen cloth and serges. At Cheddar they make the best and the biggest cheeses in England, as good as the Parmesan. The whole milk of the parish goes for the making of it, by agreement among the parishoners.

Market-Towns.

Bristol, the capital Wed. and Sat.		
Bath w and f	Axbridge th	Ranasham th
Wells w and f	Sheptonmallet f	Crookhorn f
Bridgwater th	Somerton m	Dulverton f
Ilchester w	Wellington tu	Glastenbury tu
Taunton w and f	Bruton f	Chard m
Wincanton w	Ilminster f	Longport f
Watchet f	Dunstar f	Poultord tu
Southpaterton th	Wivelscumb tu	Writon tu

Staffordshire.

An inland county, in the diocese of Litchfield and Coventry, 141 miles in circumference; the air is sharp and

healthful, the soil diverse: for northward 'tis hilly and barren, southward it yields plenty of corn and grass, iron and pit coal. The inland parts are level, but woody. Here is also good stone, marble, and alabaster.

Besides the Trent that waters northward, there is the Dove, Churner, Blithe, Line, Sow, and other small rivers, which make the neighbouring lands very fruitful, and the sheep that feed upon them some of the best mutton in England. Here are also some salt springs, little inferior to those in Cheshire,

Market-Towns.

Stafford *the county-town, Sat.*

Lichfield tu and f	Ecclishall f	Betly tu
Newcastle m	Ridgley tu	Locke. w
Burton th	Browly tu	Tudbury tu
Penbridge tu	Breerwood tu	Stow tu
Lluxetar w	Walshall tu	Wolverhampton w

Suffolk.

A maritime county, south of Norfolk, and in Norwich Diocese. 140 miles in compass. The air is wholesome, but the soil diverse: sandy and full of heaths towards the sea, but yielding plenty of rye, pease, and hemp, and feeding vast multitudes of sheep. Further from the sea are woodlands, otherwise called High Suffolk, which feed abundance of cattle. But the most fruitful parts are about Edmonsbury. There are a great many parks in this country. Its principal rivers are the Stour, Breton, Deben, Orwel and Blith. Here is abundance of cheese, made tolerably good, but Suffolk butter is counted excellent. Its manufactures are woollen and linnen cloth.

Market-Towns.

Ipswich, the principal, Wed. Frid. and Sat.

Danwich f	Stowmarket th	Lavenham tu
Orford m	Newmarket th	Mildenhall f
Alborough f	Beccles f	Biddestone w

Sudbury f	Bury w	Clare f
Eye f	Hadley m	Bungay th
Dedington f	Framlington f	Holefworth tu
Ixworth f	Lestoff w	Mendlesham tu
Needham w	Neyland f	Woodbride w

Surrey.

An inland county, which the Thames parts from Middlesex 112 miles in circuit, in the diocese of Winchester. 'Tis observed that the skirts of this county are the most fruitful; however in point of health, the middle parts have the advantage both for the pleasure they yield by their Downs in hunting, and horse races. Besides the Thames, here is the Wye, which runs through Guildford, the Mole through Dorking, and the Wandle, all three into the Thames the first two near Hampton-Court, and the last near Richmond.

Market-Towns.

Guildford, the county town, Saturday	
Rigate tu	Kingston f
Southwark w and f	Croydon f
Dorking th	Farnham th

Warwickshire.

An inland county, in the diocese of Worcester, Lichfield and Coventry, is 135 miles in circuit, enjoys a good air; and plentiful soil, especially on the south, northward 'tis woody. Among its rivers Avon is the chief, which runs through the midst of it, and falls at last into the Severn. Its chief commodity is cheese.

Market-Towns.

Warwick, the county-town, Saturday,		
Coventry f	Birmingham tu	Nuneaton f
Stratford th	Coleshill w	Rugley f
Atherston tu	Henly m	Southam m
Alcester tu	Kyneton tu	Suttoncolefield m

Westmoreland.

Westmoreland, in the north west of England, partly in the diocese of Chester, and partly in that of Carlisle, is 120 miles in compass. It is hilly and marshy, but not without fruitful spots of ground, especially southward. But in general it is certainly the most barren and wild county in England. The Eden, Ken, Lon and Eamon, are the principal rivers. Ulles water and Winander mere, are two lakes, the first bordering upon Cumberland, and the other upon Lancashire.

Market-Towns.

Appleby the county town, Saturday.

Kendale f	Kirkby Steven m
Longdale th	Orton f
Burton th	Brough w
Ambleside w	

Wiltshire.

An inland county in Salisbury diocese, 140 miles round, is a healthful county. Northward 'tis somewhat hilly and woody; but southward 'tis pretty level. In the middle of it is Salisbury plain, noted for its large extent, and for feeding innumerable flocks of sheep. Its principal rivers are the Isis, Kennet, Avon, Willy and Tadder. It has the chief manufacture of wool: the best broad cloths, both white and dyed, are made all over this county.

Market-Towns.

Salisbury, the capital, Wed. and Sat.

Chippingham f	Crickdale f	Warminster f
Hindon th	Devizes th	Bradford m
Wilton w	Downton f	Amsbury f
Marlborough f	Wesbury f	Auburn tu

B b

Wotton basset th	Highworth w	Swindon m
Malmesbury f	Culne tu	Troubridge f
Lavington w		

Worcestershire.

An inland county in the diocese of Worcester, 130 miles in compass; yields plenty of corn, pasture, cattle, fish and fruit. The vale of Evesham is noted especially for its great fertility. Here are also several salt springs. Its rivers, the Severn, Avon, Salwarp, &c.

Market-Towns.

Worcester, the capital, Wed. Frid. Sat.		
Stowerbridge f	Kidderminster th	Tidbury tu
Evesham m	Bromsgrove tu	Upton th
Bewdly f	Parshore tu	Shipton f
Droitwich f		

Yorkshire.

A northern maritime county in York diocese, is 320 miles round. 'Tis divided into three parts, the N. E. and W. Ridings, which last is the largest and most populous. 'Tis generally a most fruitful county, yielding plenty of corn, cattle, fish, and wild fowl. Here are also abundance of fine horses, lime-stone, jet, and allum. Sureby is noted for its goats, Sheffield for iron, Richmondshire for its lead, copper, and pit coal. Its principal rivers are the Humber, Aire, Chalder, Dun, Derwent, Nidd, Ouse, Swale, Youre, Warff and Tees. This county is about the size of the dukedom of Wirtemberg in Germany; and bigger than all the seven United Provinces of Holland. The manufactures here are cloths, which of late are carried to great perfection.

Market-Towns.

York, the chief town, Tuesd. and Sat.		
Kingston upon	Halifax th	Patrington f
Hull tu and f	Leeds tu and f	Hornsey f
Knaresborough w	Bradford th	Burlington f
Rippon th	Aberford w	Scarborough th

Boroughbridge f	Sherborn f	Thriske m
Pontefract f	Selby m	Northallerton w
Sheffield w	Tadcaster th	Richmond f
Rotheram m	Wetherby th	Whitby f
Doncaster f	Shipton f	Gilborough m
Tickhill f	Ripely f	Pickering m
Bawtry f	Beverly w and f	Yarum th
Barneley w	Heydon f	Stocksley f
Wakefield th	Howdon f	Beddal tu
Hathersfield tu	Wighton w	Masham tu
Snath f	Malton tu and f	



II. WALES.

The principality of Wales, lyes on the W. of England (commonly reckoned a part thereof) bordering on the Irish sea, and parted by the river Dee, and a line drawn to the river Wye; in length from N. to S. about 124 miles, in breadth from E. to W. about 100.

It was first conquered by the Romans (about the same time that England was) and afterwards had a king of its own, and sometimes two, one of North and the other of South Wales; till at last the kings of England subdued them, and brought them under their power; so that it is at present under the kings of England, whose eldest son has the title of prince of Wales.

The inhabitants, as in the rest of England, are most Protestants, their language very harsh, being the same with the old British or Gallick, but the English is also much used among them; their chief commodities are cattle, butter, cheese, Welsh-frizes, cottons, bays, herings, hides, calves skins, honey, wax, and other such like. It is divided into two parts, which are;

1. North Wales, the seat of the old Ordovices, since the kingdom of Guinedth and part of Powisland; it contains six counties, which are,

1 Flintshire	} chief towns	St. Asaph and Flint
2 Denbighshire		Denbigh
3 Isle of Anglesey		Beaumaris
4 Caernarvonshire		Caernarvon and Bangor
5 Merionethshire		Harlech
6 Montgomeryshire		Montgomery and Welshpool
St. Asaph is the chief town of the whole.		

2. South Wales, the seat of the old Dimetæ, and part of the Silures, since the kingdom of Debenbarch, and part of Powisland; it contains six counties, viz.

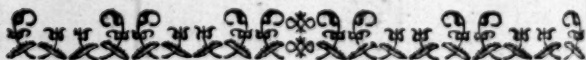
1 Cardiganshire	} chief towns	Cardigan
2 Radnorshire		New Radnor
3 Pembrokeshire		Pembroke and St. Davids
4 Carmarthenshire		Carmarthen
5 Brecknockshire		Brecknock
6 Glamorganshire		Cardiff and Landaff

Pembroke chief of the whole.

Rivers of principal note are Wye and Dee.

Principal mountains are those called Snowdown hills, and Plinlimmon.

Archbishopsricks 0, Bishopsricks 4, Universities 0.



III. SCOTLAND.

The kingdom of Scotland is the rest of the island of Albion or Great Britain, and lies on the north of England, from which it is parted by the rivers Tweed and Solway, and the Cheviot hills; in length from Dunfermline head to the S. of Galloway 250 miles, in breadth from Aberdeen to the isle of Mull 150 miles.

The inhabitants are Protestants, and those chiefly Presbyterians; their language is in the south parts a corrupt English, and on the N. and W. parts a dialect of the Irish; their chief commodities are most sorts of fish in great abundance, much linnen cloth and tallow, val

numbers of cattle and hides ; as also excellent honey,
lead oar, iron, train oil, coarle cloths, frizes, &c.

It is divided into two { S. the Firth } { Edinburgh
classes, viz. { N. the Firth } { Aberdeen

South comprehends	Chie Towns	Galloway	Kirkcudbright	WtoE
		Nithsdale	Dumfries	
		Annandale	Annand	
		Eisdale with Euldale	Hermitage	EtoW
		Liddisdale	Jedburgh	
		Tiviotdale	Duns	
		The Mers	Lauder	
		Lauderdale	Peebles	
		Tweedale	Glasgow	EtoW
		Glydsdale	Ayr	
		Kyle	Burgenny	
		Carrick	Edinburgh	EtoW
		Lothian	Idem	
		Stirling	Idem	
		Renfrew	Irvine	
		Cunningham	Rothefay	
		Isles of { Bute	Kilzeran	EtoW
		{ Arran		
		Peninsula of Cantyr		
North comprehends	Chie Towns	Fife	St. Andrews	EtoW
		Meeteith	Dumblain	
		Lennox	Dumbarton	
		Argyle	Inverary	EtoW
		Perta	Idem	
		Strathern	Bernethy	
		Broadalbine	Dunfermling	EtoW
		Lorn	Bervy	
		Merus	Dundee	
		Angus		EtoW
		Garry	Blair	
		Athol	Aberdeen	
		Mar	Kuthven	EtoW
		Badenough	Inverlochy	
		Lochaber		

N. comprehends	Buchan	Chief Towns	Peterhead	E. to W
	Banff		Idem	
	Murray		Elgin	
	Ross		Tain	S to N
	Aberdeenshire		Dornock	
	Strathnaver		Strathy	
	Caithness		Wick lying N E of Strathnaver.	

These are the various divisions of Scotland, according to the best maps and the manner how they are found. But since that kingdom is ordinarily divided in sheriffdoms, stewardries, bailiaries, and one constabulary, we shall also consider it in that respect; and seeing each of these sheriffdoms and stewardries, &c. comprehend either a part, or one, or more of the said divisions, we shall here subjoin all the sheriffdoms and stewardries, &c. of the whole kingdom, and annex to each of them their whole content, whether more or less. Therefore,

Sheriffdoms of Scotland are those of	Edinburgh	Containing	Middle Lothian	of
	Berwick		Mers and bailiary of Lauderdale	
	Peebles		The forest of Ettrick	
	Selkirk		The N and W parts of Galbarony of Renfrew	
	Wigtoun		Clackdale	
	Renfrew		Lennox	
	Lanerick		Isles of { Bute	
	Dumbrington		{ Arran	
	Bute		Stirling, on both sides the river	
	Stirling		West Lothian	
	Linlithgow		The E. parts of Stirlingshire	
	Clackmanan		The W. parts of Fife	
	Kinross		The rest of Fife	
	Coupar		Angus, with its pertinents	
	Forfar		Merns	
	Kincardine		The E. parts { of Murray	
	Elgin		The W. parts {	
	Nairn		Caithness	
	Wick		Isles of { Orkney	
	Orkney		{ Zetland	

Sheriffdoms of Scotland are those of

Aberdeen cont.	{ Mar, with its pertinents Buchan Strathbogie	
Perth cont.	{ Perth Athol Gawry Broadalbine Menteith Strathern	{ As also { Glenshee Strathandel Ramach Salwadder Glenurquhy Stornmont
Inverara cont.	{ Argyle Lorn Cantyr Isles W. of	{ Lorn Cantyr
Bamfe cont.	{ Bamfe Strathdobern Boyn Enzy Strathawn Balveny	
Inverness cont.	{ Badenough Lochaber The S. parts of Ross Part of Murray beyond Nairn	
Tayne cont.	{ Sutherland Strathnaver	
Roxburgh cont.	{ Tiviotdale Liddisdale Eusdale with Eusdale	
Ayre cont.	{ Kyle Carrick Cunningham	
Dumfries } Cromarty }	cont. { All Nithsdale A little of Ross, S. of Cromarty	

Besides those sheriffdoms, there are

{ Stewardries
Bailiaries
One Constabulary

Stewardries are

{ Strathern
Menteith
Annandale
Kirkcudbright } cont. { Strathern
Menteith
Annandale
E. and S. parts
of Galloway.

As also { St. Andrews
Killmuire
Abernethy } in { Fife
Angus
Perth

Bailiaries are

{ Kyle
Carrick
Cunningham
Lauderdale } cont. { Kyle
Carrick
Cunningham
Lauderdale

The one constabulary is that of Haddington, containing East Lothian.

Principal rivers are Tay and Spey.

Mountains of greatest note, are the Cheviot hills, and those of Albany.

Chief lakes are Lomon, Nefs, and Tay.

Archbishopricks 2, Bishopricks 12, Universities 4.



IV. IRELAND.

The kingdom of Ireland, an island lying on the W. of England and Wales; in length from the N. part of Antrim, to the S. parts of Cork, 285 miles; in breadth from the E. parts of Down, to the W. parts of Mayo, 160 miles.

The inhabitants are both Protestants and Papists; their language a dialect of the old British, intermixed with Norwigan, Danish, and English; the English is

also frequently used among them, and in some places a mongrel speech between both; their chief commodities are cattle, tallow, butter, cheese, honey, wax, salt, hemp, linnen cloth, pipe staves, wool, frizes, &c. It is divided into four provinces, which are,

1. Ulster. 2. Connaught. 3. Leinster. 4. Munster, or Mounster.

Rivers of note are Shannon, Barrow, Shur, and Blackwater.

Chief mountains are Knock Patrick, Slew Bloemy, and Curlew hills.

Lakes of greatest note are Lough Earn, Lough Neagh and Lough Corrib.

Archbishopricks 4. Bishopricks 18. University 1.

Lesser British islands are.

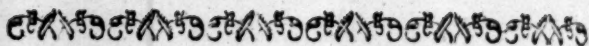
1. The Orcades, or Orkney islands, on the north of Scotland. The number of them is indeed very great, 26 of them are inhabited. and the rest called Holms, are used only for pasturage. Most of them are blest with a very pure and healthful air to breathe in, but their soil is very different, being in some extremely dry and sandy, in others wet and marshy; however they are indifferently fruitful in oats and barley; the chief of them are Hoy, Mainland, Sapintha, and Westra; the chief town is Kirkwall in Mainland. These islands have been visited by the Picts, and subject to the Danes; but Christian V. of Denmark, having quitted all his pretensions to them in favour of James IV. of Scotland, they have ever since acknowledged allegiance to the Scots crown.

2. Zetland. Under this name are comprehended 46 islands, with 40 Holms, besides many rocks. Of these islands, about 26 are inhabited, the rest being used for feeding cattle. The chief of them are Mainland and Shetland; the chief town is Ylesburg in Mainland.

3. The Hebrides. They surpass 300 in number, the most remarkable of which are Jona and St. Kilda.

4. Man on the W. of England.

5. Wight on the S. of England, &c.



T H E

Management of HORSES.

THE necessity every traveller lies under of having some knowledge of the art of managing his horse, and the many inconveniences frequently attending the want of this knowledge, are so evident, that nothing need be said to evince the usefulness of this article: I shall therefore without any farther preamble, give a few hints to assist my readers in buying such horses as are fit for the road, and then treat of their management under the accidents and disorders to which they are liable.

As to the first part of this task, it is the more necessary, since whoever would buy a good horse, must know how to choose him himself, and never place the least confidence in the words of a jockey or dealer in horses.

Rules for buying Horses.

IF a horse is young, his tusks will be sharp-pointed and grooved, or hollowed on the inside: but the jockies have the art of burning the corner teeth of an old horse, after they have been cut with a graver, by which means they imitate the mark, and frequently deceive: yet the cheat is discoverable by other signs: as, when he has white eyebrows, he may be supposed to be about 15 or 16 years of age: the age of a horse may also be known by the length and yellowness of his teeth, the leanness of the roof of his mouth, and the narrowness of the under jaw.

But it is not sufficient that you are not deceived in buying an old horse for a young one, the eye is carefully to be examined, lest you should buy a horse that

is blind, or that has some defect in his sight. The best eye is of a hazal colour, and it is an advantage to have it rather large than small; the part commonly called the sight of the eye, should be perfectly bright and clear, without the least dimness, so that you may see the bottom and the image of your face reflected from thence and not from the surface; and you should also observe, if upon changing the situation of the horse with respect to the light you can discern the sight of the eye contract or dilate itself. This, added to the clear transparency already mentioned, is a proof of the goodness of the eye.

But to proceed. Every man who buys a horse, should chuse one whose size and strength are in proportion to the weight he is to carry: but in general, a middle siz'd horse is best for the road, and one of 14 hands and an inch is of sufficient strength to carry any man under 15 stone.

After the jockey has exercised his horse before you, you should ride him yourself two or three miles on a rough, uneven road, when you should give him his head without forcing him by whip or spur to perform with more life and spirit than he is otherwise inclinable; if he walks, trots and canters nimbly, without dwelling upon the ground, taking up his fore feet moderately high, stepping longer or shorter, according as he finds there is occasion, and going near before and wide behind, he is likely to carry his matter well. But it must be remarked, that the best proof of the excellency of a road horse is his trotting down hill, where it is pretty steep; for if he is able to perform this well he is able to trot on any ground whatsoever.

Captain Burdon, in his Pocket Farrier, advises those that want to buy, to observe that the horses knees are not broken. This is a very good caution, and it is what all people are, or ought to be aware of; yet as one who is no common stumbler may have an accidental fall, you should observe whether the knees are covered with hard scars, which if they be, and the hair is curled about them, it is a certain proof of his being an old offender.

If a horse goes clean, it is a pretty sure sign that he

moves well upon his limbs; therefore when you see a person alight at an inn, with his boots tolerably free from dirt, you may almost venture to buy his horse without seeing him exercised.

The horse that has his breast full and prominent is very unfit for travelling; therefore, before you buy a horse, stand in a right line with his head, and mind that his breast don't keep his knees too far asunder, for the nearer he stands with his knees, provided he does not cut, the more reason have you to judge that he will travel expeditiously, therefore take particular notice that his breast be narrow, thin, and lean, his shoulder-points not projecting forwards, and his fore legs streight and almost perpendicular.

To conclude this article, there is scarce a better property in a horse than a sound, tough hoof, that will abide hard roads without much heating. A foundered hoof is very often long and deep, and shaped more like that of an ass than of a horse; but the good hoof is semicircular, and rather flat than otherwise.

Rules for travelling, with Directions for preventing and curing the Disorders Horses are incident to on the road.

When you set out on a journey, observe whether the shoes be salt, whether they sit easy, or whether they do not cut either before or behind. If a horse cuts with bad thin shoes, he will probably do it when he is fresh shod; but this may sometimes be helped by a good smith.

Most of the disorders to which horses are subject, are produced by the negligence or ignorance of the rider; and as they may be easily prevented by a proper care, they are cured without difficulty, if taken in time. It is true it is much more easy to prevent diseases than to cure them; for if a horse be well curried, brushed and wiped down with a cloth, morning, noon and night, and duly exercised and well fed, he will be seldom out of order.

The advantage of currying and rubbing down is inconceivable; it promotes a due circulation of the blood, opens the pores, and consequently prevents a stagnation of the fluids, promotes perspiration, and is the readiest way of preserving health.

The most common causes of grease and scratches, are the carelessness, the nastiness and indolence of the groom; for unless the blood is kept in a balsamic state by proper exercise, clean, sweet and liberal feeding, that fluid, from which all the humours in an animal body are derived, must consequently become depraved. As exercise ventilates the blood, so, keeping the skin clean and smooth, occasions an easy perspiration thro' the pores: for if after hard riding we suffer our horses to lye with the sweat drying upon them, we run the risk of a violent surfeit, which is in fact the cause of most of the distempers incident to either human or brute creatures.

As we have mentioned liberal feeding, it may not be improper before we proceed farther to mention what quantity of oats, &c. a man should allow his horse on the road.

A full-sized horse that has a good appetite, and travels hard, may be allowed every day about six quarts of oats, half a pint of split beans, and a good handful of heat mixed together.

What is here said with respect to the quantity of oats necessary for a sized horse, may be a sufficient guide as to what should be allowed those of fourteen hands or under; therefore I shall only add, that he who will allow his horse the quantity of oats, &c. here mentioned, should ride slowly and make short stages.

As we have been just mentioning the quantity of corn necessary to be given to a horse on a journey, I shall give the young traveller some hints relating to his watering his horse on the road, and then proceed to give directions for the cure of those disorders which are occasioned by the want of following these rules.

When a horse travels he perspires very much, and may therefore be allowed to drink a little now and then, as opportunity offers, and this will greatly refresh him; you should never let him drink much at a time, for

if you suffer him to drink his fill, he will become dull and sluggish; and besides, if he be very hot, it may be attended with very bad consequences. However, when you come within a mile and a half, or two miles of the place you intend to bait at, either at noon or night, he may drink more freely, going a moderate trot afterwards, for by this means the water will be well warmed in his belly, and he will go in cool. Yet, carefully observe, that if there has been no water, or he has not drank on the road, never suffer your horse to be led to water, or to have his heels washed immediately after you arrive at your inn; but let him have water luke-warm after he has stood some time in the stable; for much mischief has been frequently done by imprudent riders, who after having travelled hard, have let their horses drink as much as they would, just after going into the inn or town where they intend to lie.

These observations relating to currying, feeding and watering your horse, if carefully observed, will be of great service, and contribute more than any thing else to preserve him in perfect health.

How to save a Horse's Back from galling.

Young horses that have not been used to have their backs pressed, are most subject to gall and warble, and therefore we cannot take too much pains in fixing the saddle and suiting it to the shape of the back, that it may bear as equally as possible upon all parts at the same time.

As soon as an inflammation is found to be coming on, which may be known by some places under the saddle sweating, or continuing moist longer than others, especially if the back be viewed some hours after the saddle has been taken off, these places should be eased by removing the stuffing, that the weight of the rider may press upon other parts that are not so much heated. Vinegar, urine, salt and water, &c. are frequently used to cool a horse's back that has been hurt by being overheated; but if the skin be broke in holes, it would be better to use equal quantities of spirit of wine and tincture of myrrh and aloes, with a little oil of turpentine,

and bathe the place with it now and then. There will be small holes in these tumours (which are called warbles) before some people would imagine it; but if you use the said tincture, you may proceed on your journey; you ought however to look frequently at your horse's back, and not hang upon him so as to make the inflammation spread. It would also hasten the cure if you would every hour walk a while on foot, and bathe the horse's back with vinegar, or any thing else that is an enemy to putrefaction.

On the Navel Gall.

THE swelling called the Navel-gall is a tumour on the vertebrae, or bones of the back, and is occasioned by a contusion of the saddle-tree, which for want of stuffing the pannel, it has rubbed and fridged the horses back. To prevent this, you should frequently, when riding, put your fingers before and behind your saddle, to feel whether it pinches the horse, that you may remedy this disorder in time, by getting your saddle chambered, or hollowed, to prevent its pressing the grieved part. But when, through the negligence of the rider, the horse happens to be crushed either before or behind the saddle, and that it swells much, you should, (as in all other tumours occasioned by bruises) endeavour to disperse it, by applying warm, greasy poultices, as scalded bran and hog's lard, boiled turnips, or the like. Tho' if the bruise be slight, it may yield to cold applications, as whites of eggs, wheat flower, bole armoniac and vinegar laid thick upon a piece of leather, larger than the swelling, and renewed as it dries; but if the hurt be very slight, the humour may be dispersed by washing the place with vinegar, or salt and water.

How to cure a Crush on the Navel Gall.

A Crush on the navel gall frequently becomes what is termed an encysted tumour; the matter that forms it is contained in a strong skin or bag; and this

kind of swelling frequently remains for years after the hurt is received, unless they are carefully cut out by the farrier. The method of cure is to make a long incision, and to cut out the bag of matter, skin and all, and then to heal the wound with the following ointment.

The common Wound Ointment.

Take common turpentine, half a pound; honey, one pound and a half; Burgundy pitch, twelve ounces; and hog's lard, half a pound; melt these well together; and when it has been taken a while from the fire, stir in an ounce of French verdigrease in fine powder, and keep stirring till it is as thick as honey, or, till the powder cannot sink to the bottom.

Of swelled Legs.

SWelled legs in horses is one of their most common grievances, and it must be acknowledged that some are by far more apt to swell in the legs than others; but when a horse's legs swell and will not yield to good keeping, clean dressing, &c. without the help of medicines, the case is bad; but the following purge may be of service.

Take one ounce of common aloes, half an ounce of diapente, three drams of species-hieræ-picræ, one dram of diagridium, 100 drops of oil of aniseed, and as much treacle as will make it into a stiff ball, to be rolled in liquorish powder or flower of brimstone, and given the horse in the common way, working it off with warm water and oat meal, when the medicine begins to operate.

The above dose, with respect to the quantity of the aloes and diagridium, may be enlarged or diminished according to the horse's age and strength; but it is not safe to increase the diagridium above the quantity of two drams: but a horse that is lean and weak should only be once or twice purged with the following preparation,

and afterwards he should take strengthening medicines to restore his fibres to their natural tone and elasticity.

Take of succotrine aloes, one ounce and half; extract of cassia, one ounce; of senega in powder, three drams; cinnamon, cloves, nutmegs, and galengal root, powdered, of each two drams; mix, and with as much syrup of roses-solutive as is necessary, beat the whole into a stiff mass to be formed into two balls, which are to be given the horse in a morning, washing him down with a little warm ale, keeping him from his meat at least half a day.

If your horse is strong and full of flesh, and really requires purging, he may in such case bear the common dose: but it is a necessary caution, that when the first dose does not purge, a second should not be immediately given; for by this management many horses have lost their lives: and it is a general rule, always to keep under the common dose of any medicine, till we are thoroughly acquainted with the temperament and constitution of the creature we have to deal with.

Of the Scratches.

THE scratches are a painful distemper, and in many respects are agreeable to what is termed kibe in human bodies; and this generally proceeds from the carelessness and nastiness of the groom; so the grease is mostly occasioned by his negligence, in suffering the scratches to grow to too great a height. Yet, according to Dr. Bracken, the scratches differ from the grease, in that the first require rest, a large stall, and a proper ointment, whereas the grease (without the scratches) is better after moderate riding. Experience informs us, that motion prevents the closing of all kinds of wounds; and it is equally certain that an horizontal posture of the body or limb wounded, is greatly preferable to a depending one; for these reasons, a sore on the back part of the fetlock, the part where the grease and scratches happen, requires care and patience. For this reason, a horse who has the grease or scratches, or wounds with swelling in the legs, will not lie down, he must ei-

ther be forced to it, or covered with a cloth and turned out in the day; for when a horse is turned out from a warm stable into a field, the coolness of the air causes such a contraction of the fibres and the muscular parts as puts a stop to the influx of the humours, by which means an inflammation and stagnation of the blood and juices are prevented; but before he is turned out, his heels ought to be well washed with warm water, and anointed with the following ointment.

An Ointment for the Scratches.

Take of white ointment, two ounces; Flanders oil of bays and quicksilver, each half an ounce; melt the white ointment a little, then stir in the oil of bays, and then stir in the quicksilver, and keep stirring till all be so cold that the last ingredient cannot sink to the bottom.

N. B. Before this ointment is applied the hair should be clipped away from the fores, the legs washed perfectly clean with pretty warm water, and the part well dried.

Dr. Bracken asserts, that inward medicines are not absolutely necessary in the cure of the scratches or grease, and assures us, that he durst undertake to cure these disorders sooner by turning out, good feeding, clean dressing, and letting the horse have a double stall in which he may lye at his ease, than by any other method whatsoever.

Of Gravel in the Hoof.

IF a smith drives a nail into the quick, it naturally becomes festered and inflamed, and the sand or gravel in the roads working up the nail hole, render him perfectly lame: and it is a general rule, that whenever any foreign matter happens to be lodged in any part of the animal machine, it should be taken out as soon and as carefully as possible. The greatest care should be taken not to cut, pare, or scrape the hoof more than is necessary, it being sufficient to cut away what is black

and discoloured, and then to dress the wound with the following ballam.

Vervain's famous Balsam for curing Wounds or Pricks.

Take balsam of Peru, half an ounce; gum Benjamin, half an ounce; storax, three drams; succotrine aloes, three drams; choice myrrh, six drams; powder them; and after putting them into a wide mouthed pint gooseberry bottle, pour upon them one pint of rectified spirit of wine, and corking it loosely, set the bottle in sand in an iron pot over a middling fire, keeping the spirit pretty warm for 24 hours; after which you may keep it close stopp'd, and decant it off clear as you want it.

The method of applying this excellent composition, is, to dip into it a piece of lint or tow, and then fasten it on the part, cleared of the gravel, &c. and renew it as it grows dry. But if this cannot be easily procured, the part may be dressed with the following ointment.

An Ointment for a gravelled Horse.

Take of turpentine, two ounces; rosin and Burgundy pitch, of each an ounce; bees wax, one ounce and a half; fresh butter four ounces; French verdigrease finely powdered, half an ounce; clarify the butter, and after melting the hardest substances first, put in the other, and last of all the powdered verdigrease; and stir the whole about till it is almost cold, otherwise the ointment will be more sharp at the bottom than at the top.

On a Clap in the Back-Sinew.

A Clap, or more properly a strain in the back-sinew, is frequently occasioned by a horse's getting his foot into a hole in the road, when having a heavy load on his back, he often catches himself so hastily upon stumbling, that he strains the back sinew or tendon behind his fore leg. This disorder is frequently mista-

ken by the farriers for a shoulder slip: but, captain Burdon give a very good rule to distinguish the difference. If the back sinew be slipt, says he the horse will lift his toe off the ground and step short; but if the shoulder, he will drag his toe as he walks.

The cure of a strain in the back sinew is best accomplished by cooling applications, and will be much sooner effected if your horse will lye down and ease his leg. When the disorder is slight, this alone will be sufficient.

A Cure for a Clap or Strain in the back Sinew.

Take four ounces of bole armoniac, and ten whites of eggs; stir these well, and add thereto as much strong red or white wine vinegar as will reduce it to the consistence of a pretty stiff poultis; and then after the leg has been well bathed and washed with warm water, and wiped dry with an easy hand, spread the preparation on thin leather all along the sinew and part affected. This must be repeated as it dries.

Sir William Parsons' Receipt for the Cure of a Strain, either of the Back Sinew or the shoulder.

Take common Barbadoes aloes, dissolved in as much hot water as will make it of the consistence of a plaister; when spread on a piece of thin leather, apply it to the part affected, and bind it easily on.

A Receipt for a Shoulder Slip.

Take oil of turpentine, two ounces; oil of swallows and petrolium, of each half an ounce; mix these together, and having heated the shoulder and opened the pores of the skin, by holding a flat iron pretty hot, at about a span distance, let it be well rubbed in.

Strains frequently happen on a journey, without any sensible heat or swelling, so that the part affected is frequently mistaken by the farriers; but in all cases of strains, it is absolutely necessary to suffer the horse ci-

ther to rest intirely, or to make small and easy stages ; for where accidents of this kind happen, nothing can be worse than motion. The common practice of rowelling for strains, according to Dr. Bracken, is of no real service, since, tho' the lameness goes off after rowelling, it is not the number of rowels, but the rest from business and the length of time, that perform the cure.

Of Strains in the Fillets.

WHen a horse has a strain in the fillets, it may be known by his dragging his hinder feet after him, his hitting his toes on the ground, and his wriggling as if he would fall. The age of the horse and the violence of the strain will render the cure the longer in performing.

A Receipt for a Strain in the Fillets.

Melt some pitch, rosin and turpentine together, and pour it all over the fillets pretty warm, and then clap over it a parcel of tow.

For Strains in the Fetlock.

Take the lees of wine, either red or white, or wine vinegar to the quantity of about half a pint, and add thereto one pound of common bole armoniac in powder ; to these put the whites of six eggs ; beat all well together, and apply it thick in the manner of a poultis. and renew it as it dries. If the powder be too much or too little for the wine lees, it may be altered so as to make it of the consistency of thick honey.

Of Windgalls.

THE cure of windgalls chiefly consists in cooling the parts, and suffering the horse to lye idle rather at graze than in the house. The above charge for strains in the fetlock may be of great service. Or, the fetlock joints may be rubbed now and then with tar.

Of Colds.

Colds generally proceed from giving cold water to horses, when hot, or in letting them cool too suddenly; and many horses have become phthisicky, and even broken-winded, by being rid, when in a sweat, belly deep in cold water. Colds generally affect those parts of the body which are most susceptible of impression, as the brain, lungs, and guts of animals; for when that matter which ought to be perspired, is retained in the blood, by the closing of the pores of the skin, nature endeavours to throw off what is hurtful, by other outlets, such as the nose, mouth, fundament, urine, &c. and therefore it is the business of the physician and the farrier to assist nature in promoting some of these discharges. And therefore when a cold is violent, as an over great fullness is brought on from the perspirable matter lodged in the veins being obstructed, bleeding must be highly proper. But there is nothing better for a horse that has got a cold, than the following cordial ball.

A cordial Ball for Colds, proper to prevent or cure most Diseases in Horses, when there are no symptoms of a Fever.

Take aniseed and caraway seed, finely powdered, of each one ounce; greater cardamum seed, half an ounce; flower of brimstone, two ounces; turmerick, in fine powder, one ounce; saffron, two drams; sugarcandy, four ounces; Spanish liquorish dissolved in hyssop water, two ounces; oil of aniseed, half an ounce; liquorish powder, one ounce and half; wheat flower, as much as is sufficient to make all into a stiff paste; and when the whole has been well beaten in a mortar, it may be tied up in a bladder, and kept for use.

This ball, when used for a cold, must be dissolved in stale beer, milk-warm, and about one ounce for a dose, given twice a day for the space of a fortnight; or else

Instead of dissolving it, it may be put between his grinders, when you should let him chew upon it for an hour or two without eating hay or grass, and afterwards give him oatmeal and water lukewarm, stirring them gently about both before and after watering.

If a horse seems gripped in the guts from the same cause, let him have the following warm drink given him.

A cordial Drink in a Cold.

Take two ounces of the above ball. half an ounce of grains of paradise, in powder, and a quarter of an ounce of long pepper, with a large nutmeg grated, and mix all up with a quart of strong, mellow ale, and give it the horse in a horn, and then keep him tied up from food for two hours; but first, he must be rid about a little, on a full trot, to shake his guts, and let loose the imprisoned wind.

If the horse is bound in his body, about twelve hours after his taking the above cordial drink, you may give him the following clyster.

A Clyster for Gripping in the Guts.

Take mellow leaves and pellitory of the wall (either green or dried) of each three handfulls. caraway seeds bruised, and aniseeds, of each one ounce. ground ginger, half an ounce. the electuary called caryocostium, one ounce; boil the herbs and seeds well in two quarts of water, to three pints, then add the ginger and the electuary, and put a quarter of a pound of fresh butter, and one ounce of Epsom salt to the whole. Let this be injected very warm and the horse's tail tied down between his thighs for a good while.

In case the guts are actuated with painful twitches and convulsive contractions, which makes the horse tumble about and strike his feet against his belly, to the above clyster may be added, half an ounce of philonium root or elemanum.

These remedies, together with care and patience, warm mashes of malt, bran, and the like, will restore your horse to health; but observe that he ought to have a wide stall, and clean, warm bedding.

Another excellent Receipt for the Cure of Gripes.

Take twenty grains of London laudanum, dissolve it in an ounce of brandy, then mix it with a pint of white wine, and add two ounces of diascordium; give it your horse in a horn milk warm, and cloath him well. Let him rest twenty four hours after it, and drink plentifully of warm water and oatmeal, for he will be very thirsty the day after he has taken it.

On Scouring or immoderate Purging.

Scouring or purging on the road may be remedied by keeping the horse to dry food and less water than common; but this must be continued for a long time with proper exercise, and a full allowance of oats and split beans.

A horse of a lax constitution being taken from grass to go a long journey, should have the following preventive physic given him in his provender.

A Powder against Scouring or over Purging.

Take galls, powdered (such as we make ink with) two ounces, and of the powders of Japan earth and Lemnian earth, of each an ounce; mix, and keep them in a bladder for use. The method of using it is to sprinkle a little water upon the horses oats, and after rubbing them a while to throw amongst them half a spoonful of the powder.

If a horse from foul feeding, catching cold, &c. purges upon the road, give him the following drink.

A Drink for a Horse which scours from foul feeding, &c.

Take one ounce of Venice treacle, boil it in a quart of stale beer till one third is evaporated, then add half an ounce of true Armenian bole in powder, and two ounces of common treacle to make it palatable; then give it the horse in one dose, and repeat it as necessity requires. If it be too weak to overcome the distemper, an hundred drops of liquid laudanum, and half a gill of strong cinnamon water may be added; but in the last case he should not travel for some days.

On a Cold in the Head.

When the brain is much loaded from the cold, take some of the following powder, and blow it through a piece of elder wood, pretty high up the nostrils.

A Powder to make a Horse's Nose run in a Cold.

Take assarabacca*, dried, half an ounce, and of the powder of margerum, one ounce, mix these together, and blow it up the horse's nostrils twice or three times a day, keeping his head and throat well covered, to prevent his getting more cold.

As the eyes are subject to various accidents on the road, particularly from the cut of a whip, a remedy for these disorders cannot be unnecessary. All wounds on the eye, if curable, will yield to the following application.

A Receipt for curing Wounds on the Eyes.

Take half an ounce of the greyish coloured lapis ca-
D d

* This is an herb shaped like the garden scurvy grass, only it is larger, and of a darker green.

laminaris, finely powdered, of lapis tutiæ two drams, of white vitriol, burnt, one dram and a half, and about one scruple of French verdigrease, reduce these into a fine powder, and mix them well with about one ounce of fresh butter. When you make use of it, warm this ointment, dip a feather in it, and apply it morning and evening to the sore. This must be continued for a good space of time, because wounds on the eyes are long in healing.

Or when the horse's eye happens to be hurt with a lash of a whip or twig, you may blow in the following powder night and morning.

For a Hurt on the Eye.

Take of lapis calaminaris and lapis tutiæ, finely powdered, of each two drams, white vitriol and allum, first powdered and then burnt together in a very clean, red-hot fire shovel, each half an ounce, mix all these together, and keep the whole in a bottle well corked; but observe, that the bottle ought not only to be dry, but well warmed before you put it in.

If the eyes be rheumy and bloodshot, and the horse has symptoms of pain in his head, bleeding will be necessary, and the following eye water may be applied.

An excellent Eye-Water.

Take four ounces of rose water, and about three drams of the aforesaid eye powder mixed and dissolved in it; squirt it into the eyes by the help of a syringe.

The water is best for rheumy, bloodshot eyes, where there is no speck or film; and the powder where there is; but observe, the eye always looks worse while the powders are using.

A Cure for a swelled Neck.

When a horse's neck happens to swell by getting cold after bleeding, the following softening poultice is the best remedy that can be applied.

Take mallow and marsh-mallow leaves picked clean from the stalks, of each ten handfuls, white lilly roots, half a pound; lintseed and fenugreek seed, of each two ounces, ointment of marsh mallows, six ounces and of hog's lard, half a pound. The leaves and roots should be boiled well, and the water pressed from them; then beat them up to a pulp in a mortar, and let it stand till you have made a jelly of the seeds by bruising them well, and boiling them in a quart of water to a pint; this you must beat up with the former; and lastly add the ointment and hog's lard, and when all are mixed thoroughly, it may be kept in a large bladder or pot for use.

This is an excellent poultice for all hard swellings, either in man or beast: when applied, it should be warmed well before the fire, spread thick over a piece of flannel, applied all over the tumour, and renewed as it becomes dry.

If a swelling of a horse's neck, after bleeding, will not disperse, it should be opened when sufficiently soft, and dressed with the common wound ointment, before recommended for healing the navel gall, and the poultice continued till the hardness is dissolved.

When a horse is under cure for these kind of swellings, it is best to give him mashes of malt, warm grains, and warm water, with a good deal of oatmeal in it, and if he will eat a little hay, it should be sweet, soft, meadow hay, sprinkled with clear water; or, in summer, cut grass.

A Receipt to cure Worms.

The best remedy for the cure of worms is *Æthiops mineral*, which ought to be thus prepared. Take four

ounces of flower of brimstone, and the like quantity of quicksilver; melt the brimstone slowly in an iron ladle, and stir in the quicksilver over a gentle heat, till it is incorporated; then take it off, and stir it till almost cold; afterwards stir them well together in an iron or stone (not a brass) mortar, till they become a black powder. Give the horse as much as will lye on a half crown piece twice a-day in his corn, which must be first wetted to make the powder stick to it. This medicine must be continued a week or longer.

A Remedy for the Gravel.

If your horse has the gravel in his kidneys, ureters, or bladder, he will seem weak in the fillets, stale often and with difficulty, and but little at a time.

Take an ounce and a half of the cordial ball above mentioned; sope of tartar, one dram; of Matthew's pill, one dram; or if the horse be lusty and strong, a dram and a half; beat those well together, and with liquorish powder make it up into two balls, and mixing it with a little stale beer and some treacle, give it for a dose out of a horn.

This medicine, if the symptoms are violent, may be repeated once in twenty four hours; and every two or three hours water luke warm should be offered him.





T H E

ART of PAINTING in Oil.

To which is added, the whole Art of Gilding with Gold and Silver, mixing Water-Colours, &c.

*A Catalogue of the several Colours used in
Painting with Oil.*

W H I T E S.

THE principal of all whites is white lead.

Of this colour there are two sorts, the one called ceruse, which is the most pure and clean part, the other is called by the plain name of white lead.

Besides white lead and ceruse, there is another sort to be met with sometimes, which they call flake white.

B L A C K.

Lam black.

Lamp, or candle black.

Ivory black.

Willow charcoal.

R E D S.

Vermillion is the most delicate of all light reds, being of itself a perfect scarlet colour.

D d 3.

Lake, especially the richest sort, is the best of all dark reds being a most pure crimson.

Red lead is the lightest of all reds now in use; 'tis a sandy, harsh colour, and such an one as is not easily ground very fine, altho' you bestow much labour on it.

Spanish brown is a dark, dull red, of a horse-flesh colour, 'tis an earth, it being dug out of the ground, but there is some of it of a very good colour, and pleasant enough to the eye, considering the deepness of its colour: it is of great use among painters, being generally used as the first or priming colour, that they lay upon any kind of work, being cheap and plentiful, and a colour that works well, if it be ground fine, as you may do with less labour than some better colours do require; the best sort is the deepest colour, and freest from stones; the other sorts are not so good to give a colour to the eye, but yet they serve as well as any others for a priming colour.

Y E L L O W S.

Yellow oaker is of two sorts; one called plain oaker, and the other spruce oaker, the one is a much lighter colour than the other.

Pink yellow.

Orpiment is that colour which some call yellow arsenick.

Masticote is a good light yellow for most uses, especially in making greens, of which several sorts may be framed out of this colour being mixed with blue.

G R E E N S.

Verdigrease is the best and most useful green of all others.

Green bice is of a sandy nature, and therefore not much used; green verditer is also a sandy colour, neither of them bear any good body, and are seldom used but in landskips, where variety is required.

B L U E S.

Blue bice bears the best body of all bright blues used in common work, but 'tis the palest colour.

Blue verditer is a colour of no good body, but something sandy, and of no very good colour itself, being apt to turn greenish, and being mixed with a yellow makes a good green.

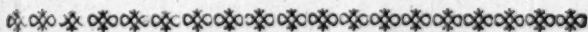
Indigo is a dark blue, if worked by itself, to remedy which, whites are usually mixt, and then it makes but a very faint blue

Note, That the longer this colour is ground, the more beautiful and fair it looks

Smalt is the most lovely blue of all others.

Note, That of this colour there are two sorts, the finest is that which is called Oil Smalt.

Umber is a colour that really has no affinity with the others above mentioned, being neither white, black, red, yellow, blue or green, yet it is a colour of as great use as any of the rest in common painting.



How to make a SIZE for the Gilding both with GOLD and SILVER.

THE operation is thus for the making of gold size: take yellow oaker, and grind it on a stone with water till it be very fine, and afterwards lay it on a chalk stone to dry; this is the common way: or you may wash your oaker, for when it is washed, to be sure nothing but the purest of the colour will be used; and besides 'tis done with less daubing.

When your oil and oaker are thus prepared, you must grind them together, as you do other oil colours, only with fat drying oil, but it is somewhat more laborious, and must be ground very fine, even as oil itself: for the finer it is the greater lustre will your gold carry that is laid on it.

Here, Note, that you must give it such quantity of your fat oil, that it may not be so weak as to run when you have laid it on; nor so stiff that it may not work well; but of such a competent body, that after it is laid on, it may settle itself smooth and glossy, which is a chief property of good size

Silver size is made by grinding white lead with fat drying oil, some adding a little verdigrease to make it bind.

The practice of working oil colours, and painting timber-work, after the manner of common painting.

THat which I here call common painting is only the way and manner of colouring all manner of wainscot, doors, windows, posts, rails, pails, gates, border-boards for gardens, or any other materials that require either beauty or preservation from the violence of rain, or injury of weather; the method of doing which, I shall lay down as plain as I can. Suppose then, that there be a set of palisadoes or a pair of gates, or some posts and rails to paint, and I would finish them in a stone colour: first look over the work, and take notice whether the joints be open in the gates, or whether there be any large clefts in the posts, for if these are not secured the wet will insinuate itself into those defects, and make the quicker dispatch in ruining the whole work; let the first business therefore be, to stop up these places smooth and even, with a putty made of whiten- ing and lintseed oil, well beaten together on the grind- ing stone, with a wooden mallet, to the consistence of a very stiff dow, and with this let all the crannies clefts, and other defects be perfectly filled up, that it may be equal to the surface of the stuff, then proceed to the priming of the work with some Spanish brown well ground and mixt very thin with lintseed oil; with this do over the work, giving it as much oil as it will drink up; this in about two days will be indifferent dry, then if you would do the work substantially, do it over again with the same priming colour; when this is thorough dry, then take the white lead well ground and tempered up, not too thin, for the stiffer you work it, the better body will be laid on, and the thicker coat of colour that your timber is covered withal, the longer it will last; let this colour be well rubbed on, and the whole surface of the work be so intirely covered, that there remain no creek nor corner bare, which you may easily do by jobbing in the point of a brittle brush: let this first colouring dry, and then go over it a second time and if you please a third also; the charge will be a little more, but the advantage will be much more great

This course is sufficient for any kind of timber work that requires only a plain colour; whether you thus cover the work with a stone colour, or else with a timber colour in umber and white, or a lead colour in indigo and white, that with white being the cheapest of the three by much; nay, I have known some lay over their work only with a coat of Spanish brown, by tempering it up more stiff than was done for the first two primings, which in some respects is cheapest of all, and preserves the timber perhaps as well as any. Now he that is able to bring the work thus far on, has proceeded to the highest pitch of that common painting that aims at preservation beyond beauty, though something of beauty is necessarily included in this also: but this is not all, for he that is arrived thus far, is in a fair way to other perfections in the art of painting: but for the panneling of wainscot with its proper shadows, and for imitating olive and walnut-wood, marable and such like; these must be attained by ocular inspection, it being impossible to deliver the manner of the operation by precept without example, and I am bold to affirm, that a man shall gain more knowledge by one day's experience than by a hundred spent to acquire it in some other way.

I advise therefore all those that desire any insight into this business, to be a little curious, if opportunity offers, in observing the manner of a painter's working, not only in grinding his colours, but also in laying them on, and working them in; in all these observing the motion of his hand, in managing of any kind of tool, and by this means, with a little imitation, joined to the directions here given; I doubt not but in a short time you may arrive to great proficiency in the business of common painting.

Note, That if when you have made use of your colours, there be occasion of a small cessation till the work be finished; in this case 'tis best to cover the colour in your pot with water, for that will prevent their drying, even in the hottest time.

And for your pencils, they ought, so soon as you have done working, to be well washed out in clean lintseed-oil, and then in warm soap-suds; for if either oil or

colours be once dried in the brush or pencil, 'tis spoiled for ever.

It has been observed, that timber laid over with white, when it has stood some time in the weather, the colour will crack and shrink up together, just as pitch does, if laid on any thing that stands in the sun; the cause of this is, that the colour was not laid on with a stiff body, able to bind itself on firm and fast.

If you shall at any time have occasion to use either brushes that are very small, or pencils, as in many cases there will be occasion, you ought then to dispose of the colours you use upon a pallet (which is a wooden instrument, easy to be had at any colour-shop) and there work and temper them about with your pencil, that the pencil may carry away the more colour; for you are to note, that if a pencil be only dipt into a pot of colour, it brings out no more with it than what hangs on the outside, and that will work but a little way, whereas if you rub the pencil about in the colour, on the pallet, a good quantity of colour will be taken up in the body of the pencil; and besides all this, you may work your pencil better to a point on a pallet, than you can do in a pot; the point of a pencil being of greatest use in divers cases, especially in drawing of lines and all kind of flourishing.

What COLOURS are most suitable, and set off best one with another.

BY setting off best, I mean their making each other look most pleasant; ; for two of some particular colours put together, or one next the other, shall add much to the beauty of each other, as blue and gold, red and white, and such like: but green and black put together, look not so pleasant, neither do black and umber, or haw colour, and such like.

All yellows then set off best with blacks, with blues and with reds.

All blues set off best with whites and yellows.

Greens set off well with blacks and whites.

Whites set off well enough with any colour.

Reds set off best with yellows, whites and blacks.

Gold looks well upon a white ground, especially if the matter to be gilt be carved.

Gold and black shew also very well.

Gold on timber colour shews also very well.

So does gold and a horseflesh colour, made with the brightest Spanish brown.

But the most glorious ground of all others for gold are the vermillion red, the smalt blue, and the lake, laid on a light ground.

Of some colours that arise from mixture.

Ash-colour is made of white lead and lam black; if a deep ash colour. then take the more black, but if a light one, then take but little black, and most white.

A lead colour is made of indigo and white.

A colour resembling new oaken-timber, is made of umber and white lead.

A flesh-colour is compounded of lake, white lead, and a little vermillion

A buff-colour, take yellow oaker, and white lead.

For a willow green. take verdigrease alone

For a light willow green, take verdigrease and white.

For a grafs-green, take verdigrease and pink.

A carnation is made of lake and white

Orange colour, yellow oaker and red-lead.

A light timber colour, mix spruce oaker, and white, and a little umber.

Brick-colour, red-lead. a little white and yellow-oaker.

For a straw-colour, take white and a little yellow-oaker.

Olive wood is imitated with oaker, and a little white veined over with burnt umber.

Walnut tree is imitated with burnt umber, and white, veined over with the same colour alone, and in the deepest places with black.

Pails and posts are sometimes laid over only with white, which they call a stone colour.

Sometimes posts and pails are laid over with indigo and white, which is called a lead colour.

Window frames are laid in white, if the building be new, but if not, then they generally are laid in lead colour, or indigo and white, and the bars with red lead.

Doors and gates, if painted in pannels, then the shadow of a white ground are amber and white, but if laid in a lead colour, then the shadows are lifted with black.

'Tis not possible to set down all those varieties of colours that may be produced by mixture; they that would see more, may peruse Dr Salmon's polygraphice, where they shall find great variety. But those which I here have given an account of, are sufficient for common painting.

How to gild with GOLD on an oily Size, either Letters or Figures, &c.

WHatsoever you would gild must first be drawn with gold size (the making of which has been mentioned) according to the true proportion of what you would have gilt, whether figure, letter, or whatever else it be; when you have thus drawn the true proportion of what you would have gilt, let it remain till it be sufficiently dry to gild upon, which you shall know by touching it with the end of your finger; for if your finger stick a little to it, and yet the colour come not off, then it is dry enough; but if the colour come off on your finger, then it is not dry enough, and must be let alone longer; for if you should then lay your gold on, it would so drown it, that it would be worth nothing: but if your size should be so dry as not to hold your finger as it were to it, then it is too dry and the gold will not take; for which there is no remedy but new sizing; therefore you must watch the true time that it be not too wet or too dry; both extremes being not at all convenient.

When your size is ready for gilding take your book of leaf gold, and opening a leaf of it, take it out with your cane pleyers, and lay it on your gilding cushion, and if it lie not smooth, blow on it with your breath, which

will lay it flat and plain, then with a knife of cane, or for want of it, an ordinary pocket knife, that hath a smooth and sharp edge; with this being wiped very dry on your sleeve that the gold stick not to it, let your leaf gold be cut into such pieces, or forms as your judgment shall think most suitable to your work.

When you have thus cut your gold into convenient forms, then take your gilding pallet, ('tis a flat piece of wood, about three inches long, and an inch broad, upon which is to be glewed a piece of fine woollen cloth of the same length and breadth) and breathe upon it to make it dampish, that the gold may stick to it; with this tool take your gold up (by clapping it down on the several pieces you had before cut into forms) and transfer it to your size, upon which clap it down according to discretion, and your gold will leave your tool, and cleave to your size; which you must afterwards press down smooth with a bunch of cotton, or a hare's foot; and thus you must do piece by piece till you have covered all your size with gold, and after it is fully dried, then with your hare's foot brush off the loose gold, so will your gilding remain fair and beautiful.

If your work to be gilt be very large, open your book of leaf-gold, and lay the leaf down on your work without cutting of it in pieces, and so do leaf by leaf till you have covered quite over what you intend to gild: and if some particular places should miss there, take up with a small bunch of cotton a piece of leaf gold, cut to a fit size, and clap it on, that the work may be entirely covered; and if the gold be to be laid in the hollows of carved work, you must take it up on the point of a camel hair pencil, and convey it in, and with the said pencil, dab it till it lie close and smooth.

How to gild on SILVER.

In laying on silver upon an oily size, the same method in all respects is required as for gilding with gold; the only in this, that the size upon which silver is laid ought to be compounded of a very little yellow oaker,

and much white lead; for the size being of a light colour, the silver laid on it will look more natural, and retain its own colour better, the whiter the size is.

Note, That the common painters do now generally in gilding use more silver than gold, in most works that are not much exposed to the air, to which they afterwards give the colour of gold, by means of the lacker-varnish, whose use is now so common, that if they gild any thing that stands free from the weather, they only gild with silver, and so give it the colour of gold with a lacker-varnish, made of gum-lake, dissolved in spirit of wine and laid over it.

Some DIRECTIONS for mixing of Oil Colours for divers Purposes, in the Art of Colouring Prints with Oil Colours.

Colours for several Faces.

FOR faces that are accounted fair, take white lead, a little vermilion and a very small touch of lake.

For the lips take more of the vermilion and lake than you did for the face.

For a brown face take burnt oaker and white.

For a tawny Moor, take cullens earth, a little burnt oaker, and a little white.

Colours for Hair.

For a brown hair, mix umber and a little black and white.

For a yellow hair, take stone oaker, white lead and a little vermilion.

For flaxen hair, take white lead, stone oaker, and a little cullens earth.

Linnen is done with white lead and ceruse.

Silver is done with white, a little smalt, and some white masticote.

Gold is done with red orpiment and white masticote of each an equal quantity.

Colours for Garments.

For blue garments the best smalt and white lead.

For a grays green, mix verdigrease and a little pink-yellow.

For a willow green, mix verdigrease and a very little white.

A sea green is made by mixing green verditer, pink, and white lead.

A French green is made by mixing pink and indigo.

A carnation by mixing lake and white lead.

A crimson is made by mixing vermilion, lake and white.

A scarlet is only vermilion laid on alone.

A cherry colour is made by mixing vermilion and white lead.

For yellow, lay on either yellow orpiment, or yellow masticote; if your yellows are more pale, then mix white with the former.

For an orange colour, mix red orpiment and a little vermilion.

For a purple, mix smalt, lake and white.

For a violet, mix bice and lake.

A straw colour is made with white and yellow-oaker, and a very little umber.

An ash colour is made by mixing black and white.

A chesnut-colour is made by mixing umber, lake and white.

A dove colour, or the wings of an angel, take white, a little lake, and a little smalt.

Colours for Trees.

For the bodies of trees, take pink yellow, white lead, yellow oaker, and a little black.

For the leaves of them that are near the eye, take verdigrease and pink, or if darker coloured, then take indigo and pink.

For leaves of trees farther off, take green verditer, pink, and white lead.

For them that are farthest of all, take terra-verd and white.

Colours for Grounds behind a Picture.

Note, That a light hair requires a dark ground, and a dark hair a light ground.

Ground colour for a picture with a light hair is made with umber, white and black.

A ground colour for a dark hair is made with umber and white.

For Ground in a Landskip.

Take pink, oaker and white, with a little green verditer.

For country houses at a distance, take white lead, yellow oaker and smalt; the same colour serves also for houses of stone.

For brick-houses or walls, take yellow oaker burnt, and white lead, if the work be far off, but if near, then Indian red, and a little white.

For pails of wood or other timber work, of what kind soever, in country cottages, take umber, white, and a little oaker.

Sky-colours,

Are made of smalt and white for the highest skies, more white for the lower, and yellow mixt with a little vermilion for the lowest of all.

The whole Art and Mystery of colouring Maps, and other Prints, in Water-Colours.

HAVING, as yet, seen nothing published upon this subject that is authentick, I have thought fit, for the sake of those that are inclined to ingenuity, to set forth the way and manner of doing this work, it being an excellent recreation for those gentry, and others, who delight in the knowledge of maps; which by being coloured, and the several divisions distinguished one from the other, by colours of different kinds, do give a better idea of the countries they describe, than they can possibly do uncoloured.

Now to perform this work after the best manner, there must be provided in the first place a lye made with tartar, and gum water.

To make the tartar lye, do thus, take two ounces of the best white tartar, which is a stony substance that sticks to the side of the wine vessels, and is sold by the druggists. Wrap it up hard and tight in half a sheet of brown cap-paper, wet it thoroughly in water, and put it into a clear fire either of wood or sea coal: let it remain therein till it be red hot quite through, then take it out with a pair of tongs, and put it immediately into a pint of water, and with your fingers rub it well to pieces; put it into a long narrow glass, and in a day or two the black will all settle, and the lye will become pure and clear: pour off the lye into a clean glass, and keep it close stoppt for use.

To make gum water, take three ounces of the whitest and clearest gum arabick, which is also sold at the druggists, and beat it as small as you can bruise it; then put it into a pint of fair spring water, and let it dissolve therein, which will be much hastened by shaking the glass three or four times a-day very well, that the gum that is dissolved may mix the better with the water that is above it; and when it is all dissolved, if there appear any foulness in it, strain it through a rag into a clean earthen-dish, and put it into a glass, and stop it up for use. Note, That too much of this ought not to be made at a time: for if the gum be kept dissolved too long in the water, it will rot, and so be of no use; therefore observe to make it fresh once in two months, or three at the farthest.

In the next place, you must prepare or make your colours ready for use, and the best for this work are those that follow; Namely,

Copper-green, and that is made thus, take a pound of right French verdigrease, made at Montpellier, this being the best, for the verdigrease made at any other places will fade. To this add three ounces of cream of tartar, beat them both into a fine powder, and take care, while the verdigrease is in the pounding, to stop your nose, and hold a bunch of fine linnen in your mouth to breath through, else the subtle powder of the verdigrease will be apt to offend; and when this is done, mix both the powders into two quarts of water, and boil it in an earthen p-pkin till it boil away a quart, then strain it out;

when cold, and put the liquor into a glass, stop it up, and let it stand to settle till the liquor be very clear, so you will have a delicate green; but sometimes the verdigrease not being always of a goodness, the colour may not be deep enough for some uses. In this case, put some of it into a broad earthen dish, and set it over a chaffing dish of coals, and by a gentle heat, diminish so much of the liquor, till by trying on a paper, and letting of it dry, the colour please you; and here you are to note, That if it shine too much when dry, it is not right; for it is not rightly made except it but just shine, and if you cannot make the colour deep enough by evaporating by heat, the abounding liquid, without making it shine too much, it were better to add some more verdigrease, and boil it up a-new till it become a transparent deep willow green. If you would make but a pint of this, you must take but half the quantities of each; and you are also to take notice, that this is a colour that will keep many years without decaying, if the glass that contains it be close shut up.

The next colour needful to be made, is a stone colour, or a liquor of myrrh, which is thus done; take a pint of your tartar lye, and add it to an ounce of the best myrrh in powder, which you can get at the druggists, and boil it till the myrrh is dissolved, which will be done in a small time; let it settle, and pour off the clear for use, which you must keep close stopt up; this is also a tincture that will never decay, and may be made fainter or deeper by boiling more of the liquor away to make it deeper, or by adding water to it to make it fainter.

And in the last place, there is required a crimson colour which is speedily made thus. Buy at the druggists some good cochineal, about half an ounce will go a great way. Take thirty or forty grains, bruise them in a galley-pot to fine powder, then put to them as many drops of the tartar lye as will just wet it, and make it give forth its colour; and immediately add to it half a spoonful of water, or more if the colour be yet too deep, and you will have a delicate purple liquor or tincture. Then take a bit of allum, and with a knife scrape very finely a very little of it into the tincture, and

will take away the purple colour, and make it a delicate crimson. Strain it through a fine cloath into a fine galley-pot, and use it as soon as you can, for this is a colour that always looks most noble when soon made use of, for it will decay if it stand long.

Indigo is another colour used in colouring maps.

This is bought at the colour shops that sell paint, and it must be ground very fine on a stone, as you do oil colours, with a little tartar lye to make it give its colour, and look the brighter, when 'tis ground perfect fine like a thick syrup, add gum water to it till it be thin enough for your purpose, and keep it in a glass close stopt up, but it will settle so, that when you use it you must stir it up from the bottom.

For a yellow, gumboge is the best, it is sold at the drugists in lumps, and the way to make it fit for use is to make a little hole with a knife in a lump, and put into the hole some water, stir it well with a pencil till the water be either a faint or a deeper yellow, as your occasion requires, then pour it into a galley-pot, and temper up more, till you have enough for your purpose.

Red lead is also a colour much used in this work, and so is opriment; both which you may buy at the colour shops very finely ground, so that they need only to be tempered with gum water to be fit for use.

Blue bice is also used often, which needs only to be tempered with gum water, and when men design to be curious, they may use instead thereof ultramarine, which is the best and most glorious of all blues, but vastly dear; yet small papers of it about two shillings price may be bought at some colour shops, which if carefully used, will go a great way; it needs only to be tempered in a very small galley pot, with some gum water, till it lie on the paper with a good colour.

There is likewise an exceeding glorious red or crimson colour, named carmine, which is exceeding dear, yet about half a crown's worth will go a great way in the uses to which it is put; it is tempered with gum water, and gives several degrees of colour according as it is thicker or thinner tempered.

Vermillion is also used in some cases. This is a glorious scarlet, and needs only be tempered with gum water, for it may be bought very finely ground to powder at the colour shops; only it is to be noted that this colour shews much brighter when dry, if glazed over with some thick gum water, which is made by putting two ounces of gum arabick to half a pint of water, or less.

And for some uses, burnt umber, ground very fine with water as thick as possible, and then tempered up with gum water to a due thickness, makes a good transparent colour.

There is another colour needful in this work, which is a most pleasant grass green, and that is made thus, take a lump of gumboge, and make a hole in it, then put therein some copper green, stir it about with a pencil, and from a willow you will see it turn to a grass green, which you may make deeper or lighter as you stir it about a longer or lesser time.

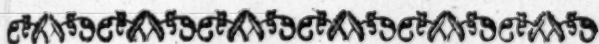


Of the Practice of Colouring Maps.

THE colours being prepared as before is directed, the only way to colour maps well, is by a pattern done by some good workman, of which the Dutch are esteemed the best; three or four such maps coloured by a good artist, are sufficient to guide a man in the right doing of his work; but if he cannot obtain this, he may by a few trials grow a good artist in a short time; for this is only attained to by practice, and if a man spoil half a score maps in order to get the knack of colouring a map well at last, there's no man that is ingenious will grumble at it.

The art of colouring right may be attained by practice; as was said, but the hardest thing is to know rightly how to make and prepare the colours properly, without suffering them to sink into it; all that are here mentioned will be fair and pleasant to the eye, and it is the fairness of the colour is most esteemed in this art of map

painting; but if the paper be not good and strong, no art can make the colours lye well; therefore in buying maps, chuse those that are printed on the thickest or strongest paper.



DIRECTIONS how to lay on METZOTINTO PRINTS on GLASS.

IN undertaking this, curiously lay the prints flatways in warm water, of the thinnest and finest paper, for that which is rough and thick will not do near so well, if at all; let them soak well, and your glass being very white and thin, go over it with Venice turpentine spread thin with a thin pliable knife, and daub it over with your finger, that the turpentine may seem rough.

This done, take the soaked print, and lay it on a clean cloth smooth, then press with another to take out the water, then lay it on the glass, the print next it, beginning at one end stroaking outwards the place already fixed on the glass, that neither wind nor water may be retained between to wrinkle it; then with a bit of a sponge, or your hand, wet the backside, and lightly by degrees roll off the paper carefully, without making holes, especially in the lights, which are the tenderest, and when the print appears very plain on the backside, let it dry about two hours, then varnish it over with turpentine or mastick varnish till you can see through it, and a nights drying will prepare it to be worked on with colours.

If you would have all the paper off, so that nothing but the print may remain, lay it as before with oil of mastick, and a little turpentine, and a brush will fetch off the paper.





T H E

Exports and Imports of G. Britain to and from foreign Nations.

To and from CHINA, INDIA and PERSIA.

EXPORTS. **G**reat quantities of bullion, lead, all sorts of English cloth, especially broad cloth, stuffs, callimancoes, long ells, and some other goods, which are the product or manufacture of this kingdom.

IMPORTS. China ware, tea of all sorts, cabinets, raw and wrought silks, muslins, callicoes, cotton cloths, coffee, canes, diamonds, drugs of many kinds, grocery wares of various sorts, and many other kinds of goods. Of which Mr. Gee supposes as much re-exported to foreign nations, as repays all the bullion carried to these places, and a considerable balance besides.

To and from AFRICA.

EXPORTS. Linnen and woollen manufactures, knives, scissars, small looking glasses, strong waters, pepper dishes, beads and other toys.

IMPORTS. Gold dust, red wood, elephant teeth, Guiney grain, gum, ostrich feathers, amber, ebony, crystal, and great numbers of negroes carried to the plantations of America. From the coast of Barbary we have rice, figs, almonds, raisins, dates and copper. The great advantage of the African trade is, that it carries no money out, supplies our plantations with negroes, and brings in a great deal of bullion for negroes sold in the Spanish West Indies.

To and from the CANARY ISLANDS.

EXPORTS. Baps, kerseys, serges, Norwick stuffs, and other common manufactures stockings, hats, fustians, haberdashery wares, tin, hard ware, also herrings, pilchards, salted fish, grain, linnen, pipe-staves, hoops, and some other commodities.

IMPORTS. Canary wines, logwood, hides, indigo, cochineal, and some few commodities which are the product of the West Indies.

To and from TURKEY.

EXPORTS. Broad cloths, long ells, tin, lead, some iron, some French and Lisbon sugars, and some bullion

IMPORTS. Raw silk, program, yarn, dying stuffs, drugs, soap, leather, cotton, oil, some fruit as currants, raisins, vitriol, sulphur, opium galls, balm, box-wood, mohair. The balance of this trade is thought to be in our favour.

To and from ITALY.

EXPORTS. Broad cloth, long ells, bays, druggets, callimancoes, camblets, and others stuffs, leather, tin, lead, fish, as pilchards, herrings, salmon, Newfoundland cod, ling, logwood, &c.

IMPORTS. Raw, thrown and wrought silks, wine, oil, soap, olives, some dyers wares, anchovies, brimstone, carpets, scented gloves, necklaces, and some other things. The balance of this trade is thought to be considerably against us.

To and from SPAIN.

EXPORTS. Broad cloth, druggets, callimancoes, bays, stuffs of divers kinds, leather, fish, tin, lead, linnen, corn, &c.

IMPORTS. Wine, oil, fruit of divers kinds, wool, indigo, cochineal, and dying stuffs, tent, &c. The balance is supposed but very small in our favour.

To and from PORTUGAL.

EXPORTS. Broad cloth, druggets, bays, long ells, callimancots, perpets, says, kerseys, flannel, and all sorts

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of stuffs, also tin, lead, leather, fish, corn, and other things.

IMPORTS. Wine, oil, salt and fruits, as oranges, lemons, almonds, also figs, saffron, soap, white marble, liquorish, shumack. There is a considerable balance in our favour.

To and from FRANCE.

EXPORTS. Tobacco, horn plates, tin, some lead, some flannels, corn in time of scarcity, wool, coals and allum.

IMPORTS. Wine, brandy, linnen, fine lace, fine cambricks, cambrick lawns, brocades, velvets, salt, paper, prunes, chefnuts &c. There is here a balance against us of no less than 500,000 per annum.

To and from FLANDERS.

EXPORTS. Serges, a few flannels, a very few stuffs, sugars, tobacco, tin and lead.

IMPORTS. Fine lace, fine cambrick and cambrick lawns, whited linnens, threads, tapes, incles, and divers other commodities, to a very great value. The balance is very much against us, being at least 250,000 l. per annum.

To and from HOLLAND.

EXPORTS. Broad cloth, druggets, long ells, stuffs of a great many sorts, leather, corn, coals, tobacco, rice, ginger, pitch, tar, with East India and Turkey goods.

IMPORTS. Great quantities of fine hollands, thread, tapes, incles, whale fins, brass battery, madder, lintseed, flax, argol, wainscot, clapboard, paper, &c. The balance is considerably for us.

To and from GERMANY.

EXPORTS. Broad cloth, druggets, long ells, stuffs, serges, tobacco, sugar, ginger, tin, lead, East India goods, and several other commodities.

IMPORTS. Proigious quantities of linnen, linnen yarn, kidskins, tin plates, and a great many other commodities. The balance is very near as much against us in this trade, as in that of France.

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To and from DENMARK, SWEDEN, and NORWAY.

EXPORTS. Guineas, crown-pieces, bullion, some tobacco, a few coarse woollens, meal, malt, beef, tallow, salt, coal, some linnen, lead, butter, and herrings.

IMPORTS. Deal boards, fir timber, spars, plank, iron, and copper, wire of iron and copper, tar, wainscot, pipe staves, great guns, mortars, bullets. We pay them a very great balance, amounting to near 390,000*l.* per annum.

To and from RUSSIA.

EXPORTS. Some coarse cloth, long clls, worsted stuffs, tin, lead, tobacco, and a few other commodities.

IMPORTS. Hemp, flax, linnen cloth, linnen yarn, Russia leather, iron, furs, pot ashes, timber, train oil, tallow, &c. to an immense value. The balance is against us here 400,000*l.* per ann.

To and from NEW ENGLAND.

EXPORTS. All sorts of woollen manufactures, linnen, sail cloth, and cordage for rigging their ships, haberdashery, hard ware, &c.

IMPORTS. Pitch, tar, and turpentine, with some skins, pipe staves, masts, pine, cedar, &c.

To and from NEW-JERSEY, NEW-YORK and PENNSILVANIA.

EXPORTS. Broad cloth, kerseys, druggets, serges, and manufactures of all kinds.

IMPORTS. Gold and silver, with some small quantity of wheat, flax, and hemp.

To and from VIRGINIA and MARYLAND.

EXPORTS. All manner of of cloathing and household goods, iron manufactures of all sorts, saddles, bridles, brass and copper wares, and in short a part of all our manufactures.

IMPORTS. Tobacco, both for home consumption and re-exportation, tar, pitch, turpentine, and some lumber.

To and from CAROLINA.

EXPORTS. The same commodities as to Virginia, viz. cloths, and all sorts of manufactures

IMPORTS. Rice, deer skins, buck skins, beaver, and some small quantity of raw silk and tobacco.

To and from the SUGAR PLANTATIONS.

EXPORTS. Cloathing of all kinds, both linnen, silk, and woollen, wrought iron, brasse, copper, all sorts of household furniture, and a great part of their food.

IMPORTS. Sugar, ginger, rum, molasses, cotton, indigo, cocoa nuts, pimento, tamarins, lime-juice, some gold and bullion from Jamaica to the value of £39,500^l. per ann. from Barbadoes, to the value of 246,600^l. from the Leeward islands, viz. Antigua, St. Christopher's, Nevis, Montserrat, Barbuda, Anguilla, Spanish Town, Tortola, and the rest of the Virgin islands, to the value of 642,270^l.

To and from IRELAND.

EXPORTS. Beaver skins, and beaver wool, French indigo; beer, ale, and cyder; old and new drapery; salt, pitch, and tar; books, bark, bottles; silks, raw thrown, and manufactured; cambrics, hollands, lawns, muslins; cotton silk, and thread stockings; worsted and silk ditto, and breeches; calicoes; silk, and hair shags; silk ribbon, cottons, mohair-buttons, fullingans, cheques, tapes, kentings; gold and silver thread and lace; bone lace, linsley-woolseys, camblers, millenary wares; cheese, hoops, hops, chalk and whiting, dye stuffs, drugs, wrought plate, china ware, earthen ware, hard ware, tin plates, block-tin, sugars, sugar molds, teas, groceries, fruits and spices; Turkey coffee, liquorice, logwood, cochineal, seeds, scythe-stones, tobacco, malt, wheat and flour; hats, barley, looking glass plates, drinking and other glasses; iron, steel, sheet lead; white, red, and black ditto; flax, and flax seed, iron and sheet ditto; mohogony, hogs bristles, colour battery and brass shuff; goats hair, Spanish and English wool, bees wax, copper plates, pistachio nuts, almonds, rice, Turkey figs; wool cards, spaw water, bricks, the

nish wines; salt petre, mustard, red wood, cotton wool, buck and doe skins, pins needles, ermins, Turkey cotton, elephants teeth, pewter, flints, toys, hats, ivory and horn combs; hollow sword blades, coals; slates, snuff.

IMPORTS. Linnens and linnen yarn: wool; woolen and worsted yarn; copper ore, beef, butter, pork, tallow; oats and oatmeal (to North Britain) rabbits fur and skins; hides; kid, calf, goat lamb, otter and fox skins; pelts, ox horns, glew, usquebagh, feathers, quills, candles, soap, and some other inconsiderable articles.



A N

Alphabetical List of ENGLISH Manufactures, with the best Markets for the purchase of them.

Bays, double, single and minikin, are made at Colchester, Bocking, Braintree, Witham, Cogeshall, and some other towns in Essex, and at Manchester.

Blankets In Oxfordshire and Wales

Brass and copper, cast, viz. into statues, into battery, as pots, sauce pots, kettles, &c. and afterwards hammered; black latten for clock work, jacks, &c. Foundery ware, as cannon, mortars, apothecaries mortars, bells, pipes, wheel and mill work, buttons, coach and upholsterers nails: wrought or hammered, clock-work, jack-work and mill work, kitchen ware, clocks, and dials, monuments, plate brass, and toys: in and about London.

Broad cloth, mixed or medley cloths in Wiltshire, Somersetshire, Kent, Surrey, and Devonshire. Plain white cloths for dying, at Salisbury, Worcester, Cirencester, and all parts of Gloucestershire.

Caps, high crowned, for seamen, called Monmouth caps, at Bewdly in Worcestershire.

China, at Bow in Middlesex and at Worcester.

Coarse Woollens, as rugs, chair coverings, pennistons half thick, duffles, &c. in Cumberland, Westmoreland and Lancashire.

Cottons, in Westmoreland, and Lancashire.

Dozens, or narrow woollen cloth mixed, at Leeds, Wakefield, Bradford and Huthersfield in the West riding of Yorkshire.

Druggets, in Wilts, Somersetshire and Berkshire.

Duroys, in the same places.

Flannels, Salisbury, Shrewsbury, and Wrexham in Wales.

Frizes, at Worcester, and in Ireland.

Fustians, at Bolton, Manchester, and parts adjacent.

Glass, fine flint, including all sorts of drinking glasses, cruets, phials, retorts, case bottles, decanters, sconces, branches, toys, watch glasses, tubes and optic glasses, at London, Bristol, Stourbridge, Nottingham, Sheffield, Newcastle.

— Looking glasses, coach glasses and sashes, at London.

— Crown glass for windows, ordinary sashes, pictures, and ordinary quarrel glass, at London, Bristol, Stourbridge and Newcastle.

Green Glass, for bottles, phials, retorts and melons, at London, Bristol, Leith, Gloucester, Stourbridge, and Newcastle.

Hats, felts at Leicester, and Warwick. Castors in Derby. Bevers in London.

Iron, cast into guns, shells cylenders, cannon, small arms, bombs, hand granadoes, chimney backs, pots, waterpipes, furnaces, plates and bars, and retorts, at Coalbrookdale, Shropshire, and at Crowley's iron manufactories in Greenwich and Newcastle.

— Forged edge tools, knives, and scissars, cutlerly ware and toys, nails, hinges, hooks, spikes, cocks, keys, razors, surgeons instruments, and clothiers and other sheers, at London, Birmingham, and Sheffield.

— Hammered, chains, anchors, crows, tires, ballistres, rails, espaliers, palisadoes, gratings, bar iron, and screws, at London and Newcastle.

— Milled hoops and all split and flatted iron, Springs for clocks and watches, London.

Kerseyes, or coarse cloths, Bradford, Hallifax, Rochdale. Guildford, and the circumjacent country.

— Devonshire Kerseyes, in Devon and Somersetshire.

Lead, Pigs and sows for exportation; sheet lead, milled or cast for covering buildings, sheathing ships, coffins, basons or fountains.

— Cast lead, for statues and pipes, bullets, small shot, moulds, letharge, calcined lead, &c at London and Newcastle.

Linsley woolsey, for hangings, Kidderminster and Worcester.

Long ells, or perpets, at Tiverton, Sudbury and Colchester.

Manchester ware at Manchester.

Narrow woollens. See dozens.

Perpets. See long ells.

Plaidings, at Coventry and in Scotland.

Sackings, at Wantage and Newbery, Berks.

Says at Sudbury.

Serges, in Wilts, Somersetshire and Berkshire.

Shalloons, Northamptonshire, West Riding of Yorkshire, Berkshire, Somersetshire, Wiltshire, Hampshire, Carlisle, Edinburgh, Stirling and Musselburgh.

Silks of various Sorts in Spittlefields.

Stockings, woven, Nottinghamshire, Leicestershire, Derbyshire, Warwickshire and Spittlefields.

— Knit yarn, in Gloucestershire, Yorkshire, Worcestershire, Derbyshire, Northampton, Kendal and Aberdeen.

Stuffs, Norwich, Spittlefields, Bristol and Dartington.

Tammies, or Coventry ware, at Coventry.

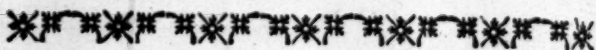
Tapestry, at Fulham in Middlesex.

Tin, blocks for exporting, pewter molds and solder, London.

Velvets, in Spittlefields, and a sort at Manchester.

Perhaps it may not be amiss to add, that butter in firkins is the produce of Suffolk, Yorkshire, Durham, Cumberland and Northumberland; cheese of Cheshire, Wilt-

shire, Warwickshire, Gloucestershire, and Suffolk; red herrings come from Yarmouth; coals from Northumberland, Durham and Bristol; malt from Herefordshire, Essex, Bucks, Kent, Oxford and Berks; salmon from Berwick.



A TABLE, shewing the Value of Portugal Pieces, in Pounds, Shillings, and Pence, Sterling.

PORTUGAL PIECES.												
Numb. of Pieces.	at			at			at			at		
	3	12	0	1	16	0	0	18	0	1	7	0
	l.	s.	d.	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	3	12	0	1	16	0	0	18	0	1	7	0
2	7	4	0	3	12	0	1	16	0	2	14	0
3	10	16	0	5	8	0	2	14	0	4	1	0
4	14	8	0	7	4	0	3	12	0	5	8	0
5	18	0	0	9	0	0	4	10	0	6	15	0
6	21	12	0	10	12	0	5	8	0	8	2	0
7	25	4	0	12	16	0	6	6	0	9	9	0
8	28	16	0	14	8	0	7	4	0	10	16	0
9	32	8	0	16	4	0	8	2	0	12	3	0
10	36	0	0	18	0	0	9	0	0	13	10	0
20	72	0	0	36	0	0	18	0	0	27	0	0
30	108	0	0	54	0	0	27	0	0	40	10	0
40	144	0	0	72	0	0	36	0	0	54	0	0
50	180	0	0	90	0	0	45	0	0	67	10	0
60	216	0	0	108	0	0	54	0	0	81	0	0
70	252	0	0	126	0	0	63	0	0	94	10	0
80	288	0	0	144	0	0	72	0	0	105	0	0
90	324	0	0	162	0	0	81	0	0	121	0	0
100	360	0	0	180	0	0	90	0	0	135	0	0

Note, The bank of England nor stamp office take pieces of gold that want above 6 grains in weight.

A TABLE, shewing the Value of Pistoles and Louis d'Ors, in pounds, shillings and pence.

A TABLE, shewing what each of the following Pieces should weigh; likewise the Value of Gold and Silver per ounce, penny wt. &c.

Louis d'Ors, at		Pistoles at			Coins.	Value			Weight at 3/18s per oz.		
l.	s.	l.	s.	d.		l.	s.	d.	pwt.	gr.	
1	4	0	16	06	A Portugal Piece	3	12	0	18	11	3
2	8	1	13	00	Half ditto	1	16	0	9	5	1
3	12	2	09	06	Quarter ditto	0	18	0	4	14	3
4	19	3	06	00	Eighth ditto	0	9	0	2	7	1
6	0	4	02	06	Sixteenth ditto	0	4	6	1	3	1
					A Moldore	1	7	0	6	22	10
7	4	4	19	00	Half ditto	0	13	0	3	11	1
8	8	5	15	06	Quarter ditto	0	6	9	1	17	1
9	12	6	12	00	A Guinea	1	1	0	5	10	1
10	16	7	8	06	Half ditto	0	10	6	2	16	1
12	0	8	5	00	Louis d'Ors	1	4	0	6	6	1
					Half ditto	1	12	0	3	3	1
24	00	16	10	00	Value of Gold.						
36	00	24	15	00							
48	00	33	00	00							
60	00	41	05	00							
72	00	49	10	00							
					1 Pound is worth	48	6	0	0	0	0
					1 Ounce	4	0	0	0	0	0
84	00	57	15	00	1 Pennyweight	0	4	0	0	0	0
96	00	66	00	00	1 Grain	0	0	2	0	0	0
108	00	74	05	00	Value of Silver.						
120	00	82	10	00							

**A TABLE of the two great roads from EDINBURGH
to LONDON.**

Stages	Miles	Tp	Stages	Miles
Haddington	16	16	2 Lintown	16
Dunbar	13	29	2 Beild	16
Old Cambus	12	41	2 Moffat	17
Berwick	16	57	2 Lockerby	17
Belford	16	73	2 Allison Bank	14
Alnwick	14	87	2 Carlisle	12
Morpeth	9	106	2 Penrith	19
Newcastle	14	120	2 Kendal	15
Durham	15	135	2 Burton	12
Darlington	13	153	2 Lancaster	11
North-Allerton	16	169	3 Gasflag	9
Burrough Bridge*	19	188	2 Preston	14
Weatherby	12	200	1 Wigan	10
Ferry-Bridge	16	216	1 Newton	8
Doncaster	15	231	2 Lestock	16
Bawtry	18	239	0 Newcastle under L	21
Tuxford	6	255	0 Stone	8
Newark	13	268	1 Litchfield	27
Grantham	14	282	2 Coles-Hill	11
Stamford	10	302	2 Coventry	13
Stilton	24	316	2 Dunchurch	9
Bugdon	14	330	1 Towcester	19
Biggleswade	16	346	3 Stoney-Stratford	10
Stevenage	14	360	2 Dunstable	19
Hatfield	12	372	1 St. Albans	13
Barnet	19	381	1 Barnet	9
LONDON	11	392	3 LONDON	11

* York is 17 miles off this place and 9 miles about, from the direct road.

N. B. Tp stands for turnpike, and the figures below, what is paid at each.



A N

English Spelling Dictionary.

A B R

A Bandon
abase
abatement
abashment
abate
abatement
abbacy
abbess
abbot
abbreviate
abbreviation
abbutals
abdicate
abdication
abdomen
abet
abettor
abhor
abhorrence
abject
abjection
ability
abjuration
able
abnegation
abroad
abroachment
abominable
abomination
abortion
abound
abrenunciation

A C C

abridgment
abroad
abrupt
abcess
abscond
absence
absolve
absolute
abstemiousness
abstract
abstraction
abstruse
absurd
abundance
abuse
academy
acceleration
accept
acceptableness
accessory
accident
accidentalness
acclamation
accommodate
accommodation
accompaniment
accompany
accomplice
accompish
accomplishment
accord
account

A D M

accountant
accoutrement
accumulation
accuracy
accursed
acculation
accuser
acid
acknowledgment
acquisition
action
actor
acute
adapt
adder
addition
address
adequateness
adhere
adjacent
adieu
adjoin
adjournment
adjust
admeasurement
administer
administration
administratorship
admirableness
admiralty
admire
admit

A G I

admonish
adopt
adorable
adornment
advancement
advantageous
adventitious
adventure
adventurous
adversary
advertisement
advice
adult
adulteration
advocate
advowson
affability
affair
affectation
affection
affectionate
affectionateness
affective
affiance
affidavit
affinity
affirm
affirmatively
affix
affluence
afford
affranchise
affray
affront
affusion
aforehand
aggrandize
aggravate
aggravation
aggression
agile

A N A

agility
agitate
agonize
agreeableness
agreement
agriculture
agrimony
aground
alabaster
albeit
alchymist
alderman
alegar
algebra
alien
aliment
allegation
allegiance
allegorical
alleviate
alligation
alligator
allowance
almanack
Almighty
aloes
alphabetically
already
alteration
alternate
amain
amais
amercement
amicableness
amusement
anabaptist
anagrammatist
analogy
analysis
anarchy
anathema

A Z U

anatomy
ancestors
anchovy
animadversion
animacule
anniversary
annoy
antichamber
antimonarchical
antichristianism
antipodes
apocrypha
apoplectic
apparatus
apparition
applicable
arch-deacon
arch-bishoprick
archetype
argumentation
armada
arraignment
arrogance
arrogate
arsenal
asparagus
aspiration
associate
assuage
astonish
astriction
astrologer
astronomy
atrocious
attribute
avail
avarice
auctioneer
authority
axel-tree
azure

B A R

B

Batchelor
backslide
backward
backwardness
bagpipe
bagpipe
bailiff
bailiwick
balance
balcony
baldersdash
baldness
bale
baleful
ballad
ballast
ballustrade
Bamburg
Bampton
Banbury
banditti
bandolier
bane-berry
baneful
Bangor
banker
bankrupt
Banthead
Barbadian
Barbodes
barbarian
Barbary
barbed
barbel
barbles
barber
Barbican
Barmore
Barmote
Barnby

B E A

Barnesley
Barnet
Barnstaple
barometer
barrack
barricado
barrier
barrister
Barthead
barter
Barton
bale
bathful
batil
basilisk
Basingstoke
Bassa
Bassaley
basset
bassoon
bassrelief
bathile
bastinado
bastion
bastwick
battoon
battalia
Bautre
bawdry
Bayborough
baynard
Beachley
beacon
Beaconsfield
beadle
beadsmen
beard
beast
beatific
beau
beaver

B E V

beatific
beaux
Beckernet
Beckingham
Beckles
becomingness
bedaggle
Bedall
bedaub
Bedford
Bedford
Bediam
beech
Beelzebub
beetom
beggary
belabour
beldam
beleaguer
Belford
belfery
Belgian
Belgie
bellow
belswagger
Beltingham
belvidere
Belvoir-castle
bemire
Bemister
bergamot
Berlin
bespeckle
besprinkle
bestriden
Bethkelert
bethought
Betley
betony
betroth
bevel

B L E

beverage
 Beverley
 Bewdloy
 bewildered
 bewitch
 Bewmauris
 Bicester
 bidder
 bigotry
 bilander
 bilboes
 Bildeston
 bilious
 Billericay
 biller-doux
 Billingford
 Billingham
 binder
 Bingham
 biographer
 bird call
 bird lime
 Birmingham
 bishoprick
 biffextile
 bittern
 bitumen
 blabber
 Blackburn
 blackmoor
 blackness
 blacksmith
 bladder
 Blaize
 blameable
 Blanford
 blanket
 blaspheme
 blazon
 bleak
 bleat

B O S

Blendor-hasset
 blindfold
 blinkard
 blithe
 blockade
 blockhead
 bloodshed
 bloodshot
 blossom
 blowze
 blunder
 bluntness
 boaster
 boarfwain
 bobtail
 bodice
 boggle
 boggy
 boiler
 boisterous
 boldness
 bolster
 Bolton
 bombardier
 bombast
 bombazine
 bondage
 bonfire
 bongrace
 bonnet
 booby
 bookbinder
 book keeping
 bookseller
 book worm
 boorish
 bopeep
 bordage
 borrower
 bosage
 Bosphorus

B U C

bosses
 Boston
 botanical
 botcher
 botchingly
 bought
 bolting-mill
 bounce
 boundary
 bounteousness
 bowelled
 bowling-green
 Bowtel
 boyish
 braggadocio
 brainless
 brand-iron
 brandish
 brandling
 brandy
 Brasil
 bravado
 brawler
 brawn
 brawniness
 breast-plate
 breeches
 breeding
 Brentford
 breviary
 brew house
 Brickhill
 bride-groom
 Bridewell
 brigade
 brigandine
 brigantine
 Brokenhurst
 browantler
 brow-beaten
 bucksomeness

B U L

buckthorn
 buckweed
 Bucolics
 bud
 Buddesdale
 buddle
 budge
 budget
 Budworth
 buff
 buff-coat
 buffle
 buffoonery
 bug
 Bagdon
 baggerer
 buggery
 bogle
 bogle-horn
 bugloss
 build
 builder
 building
 built
 bulb
 bulbacency
 bulbine
 bulbous
 bulfinch
 bulge
 bulk
 bulkiness
 bulky
 bull
 bullace
 bull-baiting
 bull-beggar
 bullet
 bull-herd
 Bullingbrook
 bullion

B U R

bullock
 bully-rock
 bul-rush
 butwark
 bum
 bumble
 bump
 bumpkin
 bunch
 bunchiness
 bunchy
 bun
 bundle
 bundle-wife
 Bungaye
 burgh-hole
 bungle
 bungler
 burghlingly
 bunt
 bunter
 bunting
 Buntingford
 buoy
 buoyant
 buoying
 bur
 Burbich
 burden
 burdensome
 burdensomeness
 bureau
 Burford
 burges
 burgeship
 burgh
 Burghdere
 burgher
 burglar
 burglary
 burgmote

B U T

burgomaster
 burial
 burlesk
 burling-iron
 barley
 burn
 burnet
 Burnham
 burning
 burning glass
 burning-iron
 burnish
 burnisher
 Burnley
 burnt
 Burntwood
 burr
 burrel
 burrow
 Burrowbridge
 burse
 burser
 burst
 bursten
 burstiness
 Burton
 Bartonferry
 burt-wort
 bury
 bush
 bushel
 bushy
 busily
 business
 buskin
 bus
 but
 butard
 bustle
 busy
 but

C A M

butcher
 butcherly
 butchers-broom
 butchery
 butler
 butlerage
 butlership
 butt
 butter
 butterfly
 butter-milk
 butter-teeth
 buttery
 buttock
 button
 buttreffs
 Buxton
 buy
 buyer
 buz
 buzzard
 by
 By-berry
 by-ends
 By ford
 by-lander
 by-lands
 by-laws
 by place
 by-way
 by-word

C

Calvinist
 calumniate
 cambric
 Cambridge
 cameleon
 Camelford
 camlet
 camomile
 campaign

C A R

Campden
 camphire
 champion
 Canary-bird
 cancer
 candidate
 candid
 Candlemas
 candlestick
 candour
 Canibal
 canine
 canker
 Cannaston
 cannon
 canonical
 canonist
 canonization
 canonship
 canopy
 Canterbury
 cantharides
 Canticles
 cantonize
 canvass
 capacious
 capapee
 caper
 capillary
 capital
 Capitol
 capitulate
 capon
 caprice
 captain
 captious
 captive
 capture
 capuchine
 carabineer
 caravan

C A S

carbonade
 carbuncle
 carcass
 cardamum
 Cardigon
 cardinal
 carreer
 careful
 careless
 Carew
 cargo
 carlings
 Carlisle
 Carlton
 Carmarthen
 Carmalite
 carmine
 carnal
 Carnarvon
 carnation
 carnival
 carnivorous
 Carolina
 carouse
 carpet
 carpenter
 carreer
 carriage
 carrier
 carrion
 cartel
 Cartesian
 Carthusian
 cartilage
 Cartmel
 cartridge
 cascade
 cashier
 Cassiope
 cassock
 castaway

C E L

Castle comb
 Cattle-sling
 catling
 castrate
 casual
 casually
 casuist
 catacomb
 catalogue
 catarrh
 cataplasm
 cataract
 cataltrophe
 catch-pole
 catechetical
 categorical
 caterer
 caterpillar
 cathartic
 Catharine
 cathedral
 catholic
 Cats-ash
 Catterick
 caterwawling
 cavalcade
 cavalier
 cavalry
 Caucles
 caveat
 caveat
 cavern
 cavernous
 cauldron
 caustic
 caution
 cautiously
 Caxton
 Caxwold
 celebrate
 celerity

C H A

cellarage
 cement
 censor
 centaur
 centinel
 century
 cephalic
 Cerberus
 cere-cloth
 ceremonial
 certainty
 certificate
 cessation
 chaffing-dish
 chaise
 chalcedony
 Chaldee
 chaldron
 challenge
 chamber
 chambering
 chamberlain
 chambermaid
 campaign
 champion
 chancellor
 chance-medley
 chancery
 Chandler
 change
 channel
 chapelry
 chaplain
 chapman
 chaplet
 Chapelborn
 character
 charcoal
 chargeable
 Charing
 chariot

C H I

charitable
 charmer
 charnel-house
 chart
 chartel
 charter
 chaste
 chasten
 Chatham
 chattles
 chatter-pye
 cheap
 chequer'd
 check-bone
 cheer
 cheese
 Chelford
 Chellingford
 Chemisford
 Cheltenham
 Chepstow
 cherish
 Cherloury
 cherry-stone
 cherubim
 Chesham
 Cheihunt
 Chetelhampton
 chevalier
 Chewton-Mendip
 Chichester
 chicken
 Chidingford
 chidingly
 chief
 chieftain
 chilblain
 child-bearing
 Childermas
 Childham
 chimerical

C I R

C L I

C O M

chimney-piece	circumvent	cling
China	circumvolution	clipper
Chipcase	Cirencester	clock-maker
Chippenham	cistern	clod-head
Chipping-Norton	citadel	clog
Chipping-Ongar	citation	cloister
Chirk-castle	cite	Clophill
chirographer	citron	close
chirurgion	civet	clothier
chirterling	civil	cloudiness
chocolate	civilian	cloven
choice	clack	clownishness
choler	clad	club-footed
Cholmondely	claim	clump
chorographer	clam	clunch
Christ	clandestine	cluster
Christ-cross-row	clap	clutter
Christendom	Clapham	Clyncorug
Christmas	Clare	coacervate
Christ's Church	claret	coach
chronologer	clarification	coadjutor
chubbiness	clarion	Cobham
Chudleigh	clash	cockatrice
Church-Stretton	clasp	Cockermouth
church-warden	clatter	coddle
churlish	clave	co-efficient
chymical	clause	coffeehouse
chymist	clay	Cogeshall
chymestry	clean	cognate
Ciceronian	clear	co-heir
circumference	clef	coherence
circumflex	clemency	cohabitation
circumfusion	Clement	coition
circumjacent	clenchers	colander
circumlocution	clergyman	Colchester
circumposition	Clevedon	collarage
circumrotation	claw	collection
circumscription	Cleydon	collision
circumspection	click	colloquy
circumstantial	Cliffe-kings	columbine
circumvallation	climacterical	combate

C O N

C R U

C Z A

comber
 Comberton
 combination
 Combmerton
 comedian
 comfortable
 comical
 comeliness
 commandment
 commemoration
 commencement
 commensuration
 commodiousness
 comparative
 complaint
 complexion
 complement
 comportment
 comprehension
 compression
 concealment
 concise
 conclusion
 concoction
 concubine
 condemnation
 constabulation
 confection
 confirmation
 conformable
 congenial
 conjecture
 conjunction
 coercion
 conquer
 conscience
 consignation
 consubstantial
 consumption
 contemplation
 contradiction

controversy
 contumely
 convent
 convulsion
 cook
 copious
 coquet
 Corbridge
 cordial
 corner
 coronation
 corpulence
 corruption
 cosmography
 cottage
 cover
 counsellor
 courtship
 coward
 coxcomb
 coy
 cozen
 crab
 crack
 cradle
 craft
 crag
 craggy
 crambo
 crane
 crape
 cravat
 crawl
 crayon
 crew
 crimson
 crokdale
 crookedness
 crowd
 Croyden
 crucifix

crumb
 crystal
 cub
 cuckold
 cudgel
 culmer
 culpable
 cultivation
 cumbersome
 cunning
 cupboard
 cur
 curable
 curate
 curb
 curdle
 curiosity
 curlew
 currans
 curry
 curse
 curtain
 curvet
 custody
 custom
 cut
 cuz
 cycle
 cycloid
 Cyclops
 cygnet
 cylinder
 cymbal
 cynic
 cynical
 cyon
 cyphon
 cypress
 czar
 czarefs
 czarina

D E C

D E R

D I S

D

Dagon
dainties
Dalmatia
Dalmatick
Dalton and Castle
damageable
damnable
dampishness
Danby
dandelion
Dane-gelt
dangerous
Darby
Darisbury
Darlington
Dartford
Dartmouth
Davertry
St. Davids
daughter
dauntlessness
Dauphin
dazzlingness
deaconship
Deal
deambulation
deanship
death-watch
debauchee
debenture
debonairness
Deborough
Decameron
decampment
deceitfulness
deceiver
December
decemvirate
deception
decimation

decipher
decisive
declaimer
declaratively
decoction
decorate
decorum
decrepid
Deddington
dedicate
dedication
deducible
defamation
definition
deformation
degenerateness
delectation
delegate
deliberation
delicacy
deliciousness
delightful
delineate
delineation
delinquent
delirious
deliverer
demi god
democracy
Denton and Hall
denunciation
Denzil
Dependale
dependance
deplorable
deposition
depravation
deprivative
deputation
Derham
derivation

derogate
description
designation
desolation
desperado
despicable
despise
despiteful
despond
despotic
detect
determine
detestable
dethrone
detractor
diabetes
diabolical
diagnostic
dialling
dialogue
diamond
diametrical
dictator
dictionary
Didmerton
Dieping-Market
difficult
diffuse
Digby
digestion
dilemma
diligence
dilucidate
dimension
diminution
diocesan
diploma
direction
disadvantage
disagreeable
disappoint

DIS

disband
disburden
discipline
discomfiture
discommode
discompose
disconsolate
discontent
discontinue
discourtenance
discredit
discreet
discriminate
disdain
disencumber
distranchise
disgraceful
dishonesty
disingenuous
dislocate
disloyal
dismember
disobedient
disoblige
disparage
dispatch
dispenser
displeasure
dispossess
disprove
dispute
disquiet
disrepute
disrespectful
dissatisfactory
dissensible
dissension
dissimulation
dissolvable
dissolute
disswade

DOR

distasteful
distemper
distiller
distinction
Dorington
distinguish
distraction
distress
distributor
distrustful
disturbance
dittander
diversifie
divertisement
dividend
divination
divinity
divorcement
divulge
D-la-sol-re
docibility
Docking
Dockley
doctorship
document
Dodbrook
doggedness
Dolbenmen
dolefully
Dolgad-Van
Dolgelle
dolphin
domestic
domineer
dominical
donation
Doncaster
Dorchester
dormitory
Dorp
Dorset

DUS

doteril
doubtful
Dove and Castle
doughtinels
Doutabel
Downham
downward
doxology
drapery
drawback
draw-bridge
dreadful
dreamer
dredging-box
dripping-pan
driveller
Droitwich
drollery
dromedary
dropical
drudgery
druggist
Druids
Drumborough
drum-major
Druston Castle
dubiouness
Dublin
ducatoon
dudgeon
dukedom
dulcimer
Dulverton
dumbness
Dunchurch
Duneton
dunghill
Dunnow
Dunnington
Duntiable
duskinels

E B O

dusky
dust
duster
dustiness
dusty
Dutch
duteous
dutiful
dutifully
dutifulness
duty
duumvirate
dwale
dwarf
dwarfish
dwell
dweller
dwelling
dwindle
dyer
dyers-weed
Dynas-Mouth
dynasty
dyseracy
dysentery
dysury

E

Earl
earnest
ear-ring
earth
earthquake
ear-wig
easiness
East Ham
Eaterton
Eaton
eaves-dropper
Ebionites
ebony

E L A

ebullition
eccentric
Eccles
ecclesiastic
echo
eclipse
ecliptic
eclogue
ecstasy
edacity
eddy
Eden
edict
edification
edifice
edition
education
efface
effectual
effeminate
efficacious
efficient
effigies
efflation
effluvium
efflux
effort
effrontry
effulgence
effusion
egestion
Eglestonebridge
egregious
Egremont
Egypt
Egyptian
ejaculation
ejection
Ela
elaborate
E-la-my

E M B

Eland
elapse
elasticity
elder
election
elector
elegance
elegy
elemental
elephant
elevate
eleven
Elham
Elhil
eligible
elixir
Ellefdon
Ellesmere
ellipsis
elogy
elope
eloquence
eloquent
Elstre
Eltham
elucidate
elucubration
elusion
Elyfian
Elzivir
emaciate
emasculate
embale
embalm
embargo
embark
embarras
embassy
embattle
embellish
embezzle

E N F

emblem
 embofs
 embowed
 embowel
 embrace
 embrocation
 embroider
 embroil
 embryo
 emerods
 eminent
 Emley
 emolument
 emotion
 empannel
 emperor
 emphasis
 empire
 employ
 empress
 emulate
 emulgent
 emulsion
 enamel
 encamp
 enchant
 enchiridion
 enclosure
 encourage
 encroach
 encumber
 endear
 endive
 endow
 endure
 enemy
 energy
 enervate
 enoble
 Enfeld
 entrenchise

E P A

engage
 engine
 engrave
 England
 engross
 enhance
 enigma
 enjoy
 enlarge
 enlighten
 enmity
 ennoble
 enormity
 enrage
 enrich
 enrol
 ensample
 enshrine
 ensign
 entail
 entablature
 entail
 entangle
 entendre
 intercourse
 enterprize
 entertain
 enthral
 enthrone
 enthusiasm
 entice
 entity
 entrails
 entrap
 entreat
 enucleate
 envious
 environ
 enumerate
 enunciation
 envoy
 epact

E S T

ephemeris
 Ephialtes
 ephod
 epicure
 epicurean
 epidemical
 epigram
 epileptic
 epilogue
 episcopacy
 episode
 epistle
 epithet
 epitome
 epitomize
 Epping
 Epfom
 Epworth
 equal
 equator
 equilateral
 equinox
 equip
 equity
 equivocal
 eradication
 Ercol and Castle
 erector
 eremical
 erratic
 error
 elcheat
 elchew
 elcurial
 elcheon
 elpouals
 elquire
 Elfenes
 establish
 elminate
 Eltri-Divodoch

E X P

eternal
 Ethiopian
 etymological
 evacuate
 evangelical
 eucharist
 event
 eventilate
 evermore
 evershalt
 Evenham
 evitable
 Eupomians
 Euphrates
 Europe
 evulsion
 Ewell
 exactor
 exchequer
 exclaim
 exclude
 execute
 exemplary
 Exeter
 Exmouth
 Exodus
 exonerate
 exorbitant
 exorcise
 expand
 expatiate
 expectation
 expedient
 expedition
 expel
 expensive
 experiment
 expertly
 expiration
 expire
 explain

E Z R

explanation
 explication
 explicite
 explode
 expound
 express
 expulsion
 expunge
 extend
 extent
 exterminate
 external
 extinguish
 extirpate
 extol
 extort
 extract
 extraordinary
 extravagant
 extremly
 extricate
 extrude
 extrusion
 exuberance
 exuberance
 exuberant
 exuberantly
 exulcerate
 exulceration
 exult
 exultation
 exuperable
 eye
 eye bright
 eye brow
 eye sight
 eye-sore
 eye-teeth
 Eyton
 Ezekiel
 Ezra

F A T

F

Fabulous
 facetious
 facilitate
 facility
 faction
 factor
 faint-heartedness
 Fairford
 Fairleigh
 fairy
 faithful
 falcon
 fallacious
 fallible
 Falmouth
 falsifier
 familiar
 familist
 famine
 famous
 famously
 fanatical
 fantastic
 fantastical
 fantom
 fardingale
 Farnham
 farinaceous
 farmable
 Farnborough
 Farnham
 farrier
 Fardingdon
 farthing
 fascinate
 fashionable
 saltidious
 fastness
 fasting
 fatality

F I C

fatherless
fatigue
faulchion
favourable
fawningly
fearfully
February
Feckingham
feculent
fecundity
federal
feebleness
facilitate
fell-monger
fellowship
felonious
Felton
female
feminine
fcoffment
fermentation
Fermingham
ferocity
Ferrybridge
Ferryhill
servent
servency
fertile
servently
festival
fetlock
feudal
severish
Feverham
fewel
F-fa-ut
fibber
fiber
fibrous
fick'ness
fictitious

F L A

fictitiousness
fiddle
fidelity
fierceness
fieriness
fifteenth
figary
figment
figurative
filament
filanders
Filey
filiation
filligrane
fillip
filter
filthiness
filtrate
filtration
finable
finance
find
fineness
finger's-breadth
finical
finisher
finiteness
firmament
firmly
firt
firtling
fiscal
fisher-man
Fishgard
fistula
fixedness
fiz-gig
flabbishness
flaccidness
flagelet
flagging

F L O

flagitious
flagrancy
flagrant
flagrantness
flambeau
flamiferous
flanconade
Flanders
flanker
flashiness
flatness
flatterer
flatulent
flauntingness
flaxen
fleetness
flegmatic
Flemish
fleshiness
fleshliness
flexanimous
flexibility
flexibleness
flimflims
flimsy
flinchers
flippant
flippantness
flittermouse
flix-weed
flotage
Flora
Florence
florentine
florid
floridness
flounce
flounder
flourish
flouter
flower-de-luce

F O R

fluctuate
 fluctuation
 fluellin
 fluently
 fluidity
 flummery
 fluster'd
 fluxibility
 focillation
 fodder
 foggishness
 foible
 Fokingham
 fold-age
 foilage
 follower
 fomentation
 fondling
 fontanel
 fool hardiness
 fool-hardy
 foolishness
 foot-man
 foppery
 foppishness
 forbearance
 forbidden
 forceps
 forcible
 fordable
 Fordingbridge
 fore-appoint
 fore-arm'd
 fore-cast
 fore close
 fore-deem
 fore door
 fore-fathers
 fore finger
 fore front
 foreigner

F U T

fore-judge
 fore-know
 fore-knowledge
 fore-noon
 fore ordain
 fore runner
 fore speak
 fore teeth
 fore thought
 forgetful
 formality
 fornication
 forsake
 forth coming
 fortification
 fortitude
 fortunate
 forward
 Foston
 Foulkton
 foulness
 foundation
 foundling
 Four Crosses
 fourteenthly
 Fowey or Foy
 fowling-piece
 Fowr-hope
 fractiousness
 fragrant
 frailty
 France
 fraternity
 freehold
 friendship
 frolicksome
 fructification
 frugality
 frying-pan
 furiousness
 futurity

G A R

G

Gaddingly
 gaggle
 gaintully
 Gainsborough
 gain-stand
 galbanum
 Galenical
 galeons
 gallantry
 gallery
 galley
 galleo-foist
 galley-pot
 Gallican
 gallicism
 gallion
 gallop
 galloway
 galoon
 gambol
 gamesom
 gamester
 gammot
 gamut
 gang
 Ganges
 Ganymede
 garbler
 garbles
 gardener
 gargarism
 gargarize
 garland
 garment
 garnish
 garnisher
 garnitur
 garrettee
 garrison
 garrulous

G E O

Garstang
 Garthley
 Gascoigne
 gashness
 Gates-Head
 Gatton
 gaudiness
 gaudy
 gavel-kind
 gavelock
 Gayton
 gaze-hound
 gazette
 gazetteer
 geese
 geldable
 gelding
 geminate
 gemination
 geminary
 gemmow
 genealogical
 generalissimo
 generality
 generation
 generosity
 generousness
 Genesis
 Geneva
 genial
 genticulate
 gennet
 genteel
 gentian
 gentilism
 gentleman
 gentlewoman
 entry
 guinness
 ogographer
 ography

G L O

geomancy
 geometrician
 Georgics
 geoscopy
 St. Germain
 germination
 gerundive
 gestation
 gesticulation
 Gateabridge
 gew-gaws
 ghostliness
 ghostly
 giant
 gibble-gabble
 gibbous
 giddiness
 Gigg's-wick
 gigglet
 gilder
 gilliflower
 ginger-bread
 gingler
 girl
 girt
 Gisbon
 Gisborough
 gizzard
 gladiator
 gladness
 Glamfor
 glanders
 Glasfenbury
 glazier
 gleam
 glebe
 Glew-great
 glitteringness
 globular
 Gloucester
 gloominess

G R A

glorification
 gloriousness
 glossographer
 glow-worm
 glutinous
 Gnatho
 gnomonics
 Gnostics
 goaler
 goatish
 goatishness
 gobblet
 Godalmin
 God-father
 God-mother
 Gofford
 Gofforth
 goggle-ey'd
 goldilocks
 Golgotha
 Gomer
 gondolier
 gonorrhoea
 goose berry
 gorgeous
 gormandizer
 gormandize
 gospels
 gossipings
 Gothic
 Goths
 St. Goven
 governableness
 governess
 government
 governor
 gracefulness
 graciously
 gradual
 Grafton
 Graies-Thurru

G R E

grammarian
 Grampound
 grampus
 granadier
 granado
 granary
 grandame
 grandee
 grandeur
 grand-father
 grand-mother
 grand-sire
 grannum
 grant
 grantee
 Grantham
 grantor
 granulation
 graphically
 grass
 grass-hopper
 grass-plat
 grassy
 gratefulness
 gratification
 gratings
 gratitude
 gratulatory
 graveness
 Gravesend
 grayhound
 grazier
 greasiness
 greatness
 Grecian
 Grecism
 Greece
 green
 green-house
 greenness
 Greenwich

G Y M

Gregorian
 grew
 grievousness
 grimness
 Grinled
 Grismond
 griffel
 grittiness
 grizliness
 groan
 grocery
 grogram
 groom-porter
 groop
 groove
 gross
 grotesk
 grotto
 groveling
 ground ivy
 group
 grout-head
 growl
 grubbage
 gruel
 gruffness
 Grynton
 grumble
 guarantee
 guardian
 gudgeon
 Guild-Hall
 Guilford
 guiltless
 guinea
 gun
 gun-powder
 gush
 gutter
 Guy
 gymnastics

H A R

gymnosophist
 gyration
 gyron
 H
 Habitation
 hab-nab
 Hackney
 haddock
 Hadley
 Hadenbridge
 Hadsho
 haggard
 Haggerston
 Hague
 hainous
 halbart
 halcyon
 Hales Owen
 Halesworth
 half-moon
 Halifax
 halliards
 halloo
 hallow
 Haltfield
 hamlet
 hammer
 hamper
 Hampton
 ham string
 handkerchief
 handmaid
 handsomeness
 handy
 hanger on
 Hanly
 Hanmere
 hans-en-kelder
 happiness
 harangue
 harass

H E A

H E R

H O L

harbinger
 Harborough
 Harbottle-Castle
 hardly
 Hardwicke
 hair-brain'd
 Haringworth
 hariotable
 Harleigh
 harlequin
 harlotry
 harmful
 harmless
 harmonious
 harness
 harpooneers
 harpichord
 harshness
 Hartlepool
 hartshorn
 harvest
 Harwich
 haddock
 hastiness
 Haltingden
 hateful
 Hatfield
 Haverford
 haughtiness
 havoc
 hautboy
 Hawkeshead
 hawser
 hazardous
 headborough
 Headdon
 heathful
 hearkener
 heart-burning
 heartiness
 heath-cock

heathenism
 heavenly
 heaviness
 Hebraism
 hecatomb
 hectic
 heedful
 heifer
 heirloom
 Helford
 helical
 hellebore
 Hellenist
 Hellespont
 hell-hound
 hellishness
 helm
 helpful
 helpfulness
 Helston
 helter-skelter
 hemicycle
 hemlock
 Hempsted
 henceforth
 hen-hearted
 herbalist
 Herculean
 hereditament
 hereditary
 Hereford
 heretically
 heretage
 Herling
 hermaphrodite
 heremetical
 hermodactyl
 hernesshaw
 Herodians
 heroical
 heroine

herring
 Hertford
 hesitate
 hesitation
 heterodox
 heterogenceal
 hexagon
 hexameter
 Hexham
 hickup
 hidebound
 hideousness
 hierarchy
 hieroglyphic
 Highgate
 Highworth
 highness
 Hilary
 Hilborough
 Hindon
 Hingham
 Hinxly
 hippocras
 hissing
 historian
 historiographer
 hithermost
 Hittites
 Hivites
 hoarseness
 hobgoblin
 hodge-podge
 hoggishness
 hog-grubber
 hoghead
 Holbeach
 holioak
 holiness
 Holland
 hollowness
 Holy-well

H U C

homage
 home
 homeliness
 Homer
 home-spun
 homicide
 homily
 homogeneous
 homologous
 honesty
 honey-comb
 honey-moon
 honorary
 honourable
 hook
 hooked
 hopeful
 hopper-ars'd
 hops
 Horeb
 hore-hound
 horizon
 horizontally
 Hornet
 horological
 horoscope
 horridness
 horse-leech
 horsemanship
 horse-raddish
 Hosanna
 hospitable
 host
 hostile
 hostilities
 hot-cockles
 hotness
 hotch potch
 household
 hubble-bubble
 hucster

H Y P

hug
 hugely
 hugger-mugger
 Hugonot
 humanist
 humanize
 humanly
 humbleness
 humid
 humidity
 humiliation
 humorist
 Hunanby
 hunch-back'd
 Hungary
 hungrily
 hunks
 hurlers
 hurry
 hurt
 hurtful
 husband
 Hussars
 Hustings
 hut
 hutch
 huzza
 hydra
 hydraulics
 hyrographer
 hydromel
 hydrometer
 hydropical
 hymn
 hyperbole
 hyperbolical
 hypochondriac
 hypocrisy
 hypocrite
 hypostatic
 hypothetical

J E W

hysteric
 hysterical
 hystericalness
 I
 Jacobite
 jagged
 jail-bird
 Jamaica
 Iambic
 jangle
 Janizary
 jannock
 Janfanism
 January
 Japan
 japanner
 jar
 jargon
 javelin
 jaundice
 ichnography
 ichnographical
 ideal
 identical
 idiom
 idiomatically
 idleness
 idolate
 jealous
 jeerer
 Jeffrey
 Jehovah
 jejune
 jennet
 jeopardy
 jerkin
 jessamin
 jester
 Jesuit
 Jesus
 jeweller

I M M

ignoble
 ignominious
 ignoramus
 ignorance
 ignoscible
 illegal
 illegitimate
 illicit
 illiterate
 ill natured
 illogical
 illuminate
 illusion
 illustrate
 administer
 imagery
 imaginary
 imagination
 imbalm
 imbargo
 embarkation
 imbattle
 embellishment
 imbezzel
 imbibe
 imbitter
 imbolden
 imbosom
 imbrication
 imbroider
 imbroid
 imbrue
 imitable
 imitative
 imitator
 immaculate
 immanent
 immaterial
 immature
 immediate
 immemorial

I M P

immense
 immerge
 immerse
 immethodical
 imminent
 immoderate
 immodest
 immoral
 immoveable
 immunity
 immutable
 impale
 impanel
 impartance
 impartial
 impassable
 impatience
 impeach
 impede
 impenetrable
 impenitence
 imperative
 imperfect
 imperial
 imperious
 impertinence
 impetuous
 impious
 implacable
 implead
 implicit
 implore
 employment
 impolite
 imporous
 importation
 importune
 imposition
 impossible
 imposture
 impotence

I N C

impoverish
 impracticable
 imprecate
 impregnate
 imprels
 impression
 imprimis
 imprint
 imprison
 improbable
 improper
 impropiator
 improvable
 improvement
 imprudence
 imprudent
 impugn
 impunity
 imputation
 inaction
 inactivity
 inadvertency
 inalienable
 inamorato
 inanimate
 inarticulate
 inaugurate
 inauspicious
 incamp
 incantor
 incapacitate
 incapacity
 incarceration
 incendiary
 incense
 incentive
 incessant
 incessantly
 incestuous
 inchanter
 incident

I N C

incircle
incitement
inclemency
inclinable
incloister
inclosure
include
inclusively
incognito
incoherent
incommode
incompact
incomparable
incompass
incompetent
incomplete
incompose
incomposed
incongruous
inconnexion
inconsiderate
inconsistent
incontinent
inconvenient
incorporate
incorrect
incorrigible
incorrupt
incounter
incourage
increated
incredibility
incredulous
incroach
incumbus
inculcate
incumbent
incumbrance
incur
incurable
incursion

I N N

indearment
indebted
indecenty
indecorum
indefatigable
indelible
indemnity
indenture
independent
index
India
Indian
indicant
indictment
indifferent
indigence
indigitate
indignation
indignity
indirectly
indiscreet
indiscretion
indiscriminate
indispensable
indisposed
indisputable
indistinct
inditable
individual
indivisibility
indocible
indolence
indorse
indubitable
induce
induction
indulgent
indulto
indurable
indurate
innumerableness

I X W

inobservance
inoculation
inoffensiveness
inordinate
inquiet
inrolment
insatiable
inscription
inseparable
insolent
instrument
insupportable
intemperate
intendment
intercommoning
interment
interwoven
inthalment
intolerable
intrenchment
inveterate
invincible
invulnerable
Joan
Job
jocund
joiner
iron
irrecoverable
Ihis
Israel
isthmus
justification
Justinian
juttle
juty
juvenile
juvenileness
juvenility
ivy
Ixworth

K I C

K

Kayage
kedger
keech
keelhalling
keen
keenness
keeper
keeve
keg
kell
Kellington
Kelmark
kelp
kelter
kemb
kembo
ken
Kencall
Kenford
kenks
kennel
kennets
kerb
kerchief
Kermes
kern
kernel
kersey
kerstrel
Keswick
ketch
kittering
kettle
Kettlewell
kex key
Keyworth
kibe
kibe-heels
kick
kickshaw

K I T

kidder
Kidderminster
kidnap
kidnapper
kidney
kidney bean
Kigworth
kilbuck
kilderkin
Kilgarren
Kilham
kill
killer
kiln
kimmel
kin
kind
kindle
kindly
kindness
kindred
Kineton
kingdom
king like
kingly
Kingsbridge
Kingscleere
Kingston
Kinland
kinsman
kinswoman
kintal
kipe
Kirk-Burton
Kirk-Oswald
Kirkfop Foot
kirtle
kiss
kitchen
kitling
kitten

K N O

kittle
klick
kluttering
knack
knacker
knag
knaggy
knap
knappish
knappishness
knapple
knappy
knapsack
Knaresborough
knave
knavish
knavishly
knead
kneader
knee-holm
kneel
knee-string
knell
knevels
knew
knick-knacks
knife
knight
knight-hood
Knighton
knit
knitter
knob
knobby
knock
knocker
knocking
knoll
knop
knot
knotted

L A P

knottily
knottiness
knotty
know
knowingly
knowledge
knowl
knubble
knucle
knur
knurling
Krickieth
Kyneton

L

Labyrinth
lachrymation
Laconic
lactation
lady's-bed-straw
lambent
Lamborne
lamkin
lameness
lamentable
Lammas
lampadary
Lanbister
Lancaster
Landaff
land call
Landrino
land-lopper
landskip
Langport
language
Langward-Fort
languidness
languor
lankness
lantern
lapidation

L E G

lapwing
larboard
larceny
larderer
large
Larlingford
larmier
lasciviously
lashers
lassitude
Lateran
latitude
lattern
laudableness
laudanum
lavender
laughing-stock
Laving East
launders
lawless
lax
lay-brother
Laystoff
Lazeretto
Lazarole
lazines
lead
leaf
leaguer
Learmouth
learning
least
lecherous
lechery
lecture
Leeds
Leeke
leese
lectch
leeward-way
legacy

L I K

legible
legislative
legitimate
Leicester
Lemington
lemonade
lenity
lent
leopard
leprosy
less
Lessian
Leice
lette
Levant
levee
Liverpool
Levitical
lewdness
Lexicographer
Lexicon
liableness
libel
libellous
liberality
liberdine
libertine
librarian
license
licentiously
Litchfield
lickorishness
lictors
lie
Lieutenancy
life-guard
lift
lygare
lightning
likelihood
likeness

L O F

L O U

L U X

ilack
 Lilburn
 limberness
 limbo
 limner
 limonode
 limpness
 line
 lineament
 lingerer
 linguist
 liniment
 link-boy
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 Linton
 Lionel
 liquable
 liquation
 liquefaction
 liquor
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 listener
 litany
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 litigation
 litigious
 Littleton
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 liveness
 lixivious
 lixivium
 lizard
 lobby
 lobs-pond
 localness
 locram
 locust
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 lodgment
 lotiness

log
 logarithm
 logarithmical
 logger-head
 logician
 log-wood
 loin
 loiterer
 Lombard
 London
 lonesomeness
 long boat
 longanimity
 longevity
 longitude
 Long-Meg
 Longnor
 long shanks
 long-winded
 looby
 loof
 looking-glass
 loom
 loon
 loop
 loop-lace
 looseness
 lop
 lopper
 loquacious
 loquacity
 lordliness
 lorimer
 loss
 lot
 lothsom
 lottery
 loudly
 Loughton
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 Louis d'ors

lousiness
 Louth
 Loughborough
 Low-Countries
 lowness
 Lowther
 loxodromy
 loyalness
 lozenge
 lubricity
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 lucidness
 Lucifer
 lucky
 lucrative
 lucubration
 Luddeston
 ludicrous
 Ludlow
 luff
 Luffenham
 luggage
 luidore
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 luminous
 lumpishness
 lunacy
 lunar
 lunatick
 lungwort
 luscious
 lustful
 lustiness
 lunatist
 Luther
 Luton
 Lutterworth
 luxate
 luxation
 luxurious
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M A J

lycanthopist
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 Lydford
 Lydia
 lymph
 lymphate
 lymphatic
 Lyn
 Lyn-Regis
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 lyrift

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 Macclesfield
 mace-bearer
 macerate
 Machiavilian
 macination
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 mackarel
 madam
 mad-cap
 maddish
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 madrigal
 magazine
 maggot
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 magician
 magisterially
 magistrate
 magnanimous
 magnet
 magnificat
 magnificence
 magnify
 mag-pye
 Mahometan
 maiden
 majestic

M A N

mail
 main-mast
 main-prize
 maintain
 maintenance
 major
 make-hate
 malady
 Malaga
 malapert
 male-content
 malediction
 malevolence
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 maliciousness
 malign
 malignancy
 malkin
 mallard
 malleableness
 Malling-West
 mallows
 Malmsbury
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 Malpas
 maltster
 Malvern-Magna
 Malvern Perva
 Malwood-Castle
 mamma
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 mammon
 management
 Manchester
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 mandarin
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 mandrake
 manifoldness
 mange
 mangle

M A R

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 Manichees
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 manliness
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 Manningtree
 Mansfield
 man-slaughter
 manteau
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 mandre
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 Marantha
 marble
 Marchal-marsh
 marchioness
 Maresfield
 Marforio
 Margam
 margin
 margrave
 marigold
 mariner
 marjoram
 maritim
 Markham
 marker
 marketable
 Market-Street
 Marlborough
 Marlow
 marmalade
 marmalet
 marmotto
 marquess

M A T

M E D

M E R

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Mars
marshal
Marshallsea
marsh-mallows
martagon
martial
martingal
Martlemas
Martinmas
Mattock
martyr
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martyrology
marvel
marvellous
masculine
Matham
mason
masquerade
massacre
massiness
masterless
master-piece
mastership
mastich
mastiff
materiality
mathematical
mathematicks
matins
matrice
matricide
marticular
matrimonial
matrimony
matrix
matron
matrosses
matted
matter

mattock
mattress
maturate
mature
maudlin
maugre
maulkin
maunder
Maunday
mawkish
maw-worms
maxillary
maxim
Maximillian
May day
mayor
mayorality
mayores
May pole
mazarine
Mazzaoth
mead
meadow
meagre
meal
mealy-mouth'd
mean
Meander
meaning
meanness
measurable
measure
meawing
meazles
meazly
mechanic
mechanically
mechanism
medal
medallion
median

mediate
mediator
mediatress
medicable
medicinable
medicinal
mediocrity
Mediterranean
medullary
meekness
melancholic
melancholly
melassies
Melicent
melilot
meliorate
mellifluous
mellow
melodious
melody
meltale
Melton-Mowbray
member
membranaceous
membrane
menioirs
memorable
memorably
memorandum
memorial
memory
menace
mendicant
menial
menses
mensurable
mensuration
metal
mercantile
mercenary
mercery

M I G

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 merchant
 Mercury
 merciful
 Megram
 Meriden
 meridian
 meridional
 merit
 meritorious
 Merlin
 mermaid
 merriment
 Merton
 mests
 mesenteric
 message
 messenger
 Messiah
 message
 metal
 metalline
 metaphrast
 metaphor
 meteor
 metheglin
 method
 methodist
 metropolis
 Michael
 Michaelmas
 micrography
 micrometer
 microscope
 Midhurst
 Middleton
 Middlewich
 midshipman
 Midsummer
 mid-winter
 mightily

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 Milbrock
 mildew
 mildness
 Mildred
 millener
 Milthorp
 Milton
 mimic
 mimical
 mimicry
 mindful
 mineral
 Minerva
 mine
 mingle
 miniature
 minion
 minister
 ministration
 minstrelsey
 minuet
 miraculous
 mirror
 mirth
 misadventure
 misbecome
 miscarriage
 miscellany
 mischance
 misconstrue
 misdoubt
 misfortune
 misgovern
 mislead
 mismanage
 misname
 mispend
 misreckon
 mis-shapen
 mistaken

M O R

midhurst
 mistiness
 misuse
 mittimus
 mixen
 mixture
 mob
 mock
 Modbury
 model
 moderate
 moderation
 modesty
 modestie
 modelation
 moistness
 molestation
 Moloch
 moment
 monarchy
 Monday
 mongrel
 monkey
 monechord
 monopoly
 monsoon
 Montonist
 Montfort
 monument
 moody
 moor-hen
 mope
 moppet
 moreover
 Morgan
 morn
 Morocco
 Morpeth
 Morpheus
 mortgage
 Morton

M Y T

N E T

N I T

Moses
mosque
motherly
moveable
moulder
mountebank
Mouthole
mourner
mouth
much
muck-worm
muddiness
multiply
multitude
Monster
Muntford
murky
muscle
Muscovy
music
mushroom
musket
mutable
mutation
mutter
mutton
mutual
nozzle
Myriads
Myrmidons
myrrh
myrtle
mysterious
mysteriously
mysteriousness
mystery
mytical
myticalness
mythological
mythologist
mythology

N
Narcissus
narrative
nativity
natural
naturalize
naughtiness
navigable
nauseous
Nazarene
nebulous
necessarily
necessitous
neck-cloth
necromancer
Needham
needfulness
needle
nefarious
negation
negative
negligence
negociate
negociator
neighbour
neighing
St. Neots
nephew
nephritic
Neptune
Nereids
nergal
nerval
nervous
nestling
Nestorians
Netherlands
nethermost
nettings
nettle
Nettlebed

never-more
Nevern
Nevin
neurology
neutral
new-fangled
Newgate
newness
Newark
Newborn
Newburg
Newbury
Newbridge
Newcastle
Newmarket
Newport
Nicene
niceness
nichils
St. Nicholas
nick-name
nick-ninny
Nicolaitans
niece
niggard
nightingale
night raven
night-shade
night walker
Nilometer
nimble
nimbleness
nincompoop
nineteen
ninety
ninthly
nipperkin
nipple
nisi-prius
nitrous
nittiness

N O R	N U C	O B L
nobleman	North-Fleet	nuddle
nobleness	North Foreland	nudils
nocturnal	North-Leech	nudity
noddy	northward	nugatory
nodousness	Northwich	nullife
noggin	Norwich	numberless
noise	nose	numerable
noisiness	nose-gay	numeral
nomenclator	nostril	numerator
nomenclature	nostrum	numerous
nominal	notable	num-scall
nominate	notary	nunciature
nomination	notation	nuncupation
nominative	nothing	nuncupative
non-appearance	notification	nuncupativeness
non-compliance	notify	nunnery
non-conformist	notion	nuptial
non-conformity	notional	nurse
Noneaton	notoriety	nurture
nonentity	notorious	nusance
non-naturals	Nottingham	Nutley
non-plus	notwithstanding	nutmeg
non-resistance	Novatians	nutrition
nonsense	novel	putritive
nonsensical	novelist	nuzzle
non-solvent	novelty	nymph
non suit	November	nymphal
nook	novennial	O
nooning	nought	Oakham
noose	novice	oaker
Normal	novitiate	oath
Norman	nourishing	oatmeal
Norroy	nourishment	obduracy
Norse	nourish	obedience
north	now	obeisance
North-Allerton	noxious	obelisk
Northampton	noxiousness	obey
North-Bury	nubble	objection
North-Church	nubbled	objector
North-Curry	nubilous	objuration
northerly	nuciferous	oblation

O C C

obligate
obligatory
oblige
oblige
obligement
oblique
obliterate
oblivion
oblivious
oblong
obloquy
obnoxious
obnubilation
obscene
obscenely
obscenity
obscurity
obsequious
obsequies
observable
observant
observation
observator
observatory
observe
obsolete
obstacle
obstinacy
obstinate
obstreperous
obstruct
obstruction
obtain
obtrude
obtruder
obtrusion
obviate
obvious
occasional
occult
occultness

O I L

occupation
occupier
occur
occurrence
ocean
Okeingham
octangular
octave
octavo
octagon
ocular
ocularness
oculist
Ode-hill
odious
odiously
odor
odoriferous
odorous
œconomy
œconomics
offend
offender
offensive
offering
offertory
office
officer
officiate
officious
officiousness
off scouring
off sets
offspring
often
ostentimes
Ogborn St. George
ogee
ogle
ogling
oil-bag

O R I

oilet-hole
oiliness
ointment
oister
Okeham
Okehampton
oker
oldish
oleaginous
olifactory
olitory
Olympiad
Olympic
Ombersley
ombre
Omega
omen
ominous
omission
omnipotence
omnipresence
omniscience
onerate
Ongar-High
opacity
opacious
opakness
open-arse
operate
operation
operator
ophthalmic
opiate
opinion
opiniative
opiniated
opium
opponent
opportune
opportunately
opportunity

O R I

opposition
 oppression
 oppressor
 opprobrious
 opprobrium
 oppung
 optic
 optic-glass
 opulence
 opulent
 oracle
 oracular
 orange
 orangery
 oration
 orator
 oratory
 orb
 orbicular
 orbit
 orchard
 ordain
 ordalain
 orderer
 orderliness
 ordinal
 ordinance
 ordinariness
 ordinary
 ordination
 ordnance
 ordonnance
 ordure
 Orford
 organ
 organical
 organicalness
 organist
 organization
 organiz'd
 orient

O S T

oriental
 original
 originalness
 Orion
 orison
 Ork
 Orkneys
 Orlando
 Orlop
 Orkton
 Ormskirk
 ornament
 ornamentalness
 ornithologist
 ornithomancy
 Oroonoko
 orphan
 orphanism
 Orpheus
 orpiment
 Orrery
 orrize
 orthodox
 orthogonal
 orthographer
 orthographical
 orthography
 Orton
 Orton-Maddock
 orvietan
 oscitant
 oscitation
 osier
 Osiris
 Osmandston
 Osmund-Royal
 osprey
 Ostend
 offensive
 ostentation
 ostentatious

O V I

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 ostler
 ostrich
 Ostrogoths
 Osweltry
 Osyth
 otherwise
 Otley
 Ottoman
 oval
 ovation
 oubut
 oven
 over-act
 over-balance
 over-bear
 over-board
 over-charge
 over-clouded
 over-done
 over-eat
 over-fill
 over-grown
 over-hastiness
 over-laden
 overmatch
 over plus
 over-power
 over-poise
 over-reach
 over-seer
 over-shadow
 Overton
 over-top
 overture
 over-turn
 over-value
 over-weening
 over-whelm
 Ovid
 Ovingham

P A L

oviparous
Oulney
ounce
Ouse
out-landish
outward
out-lawry
outrageous
outrun
outwardly
out-works
ouzel
Owen
owler
owner
Oxford
Oxwich
oxygen
oyer
oyez
ozier

P

Paddington
paddle
padlock
padnag
Padstow
Padua
paganism
pageant
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Pamphill
pain
Pain's Castle
painful
palm
palm
paint
painting
paint-trainer
palace
palatable

P A P

Palatine
paleness
palinody
palish
Palladium
pallate
palliation
Pall-Mall
palmer-worm
palmistry
palm tree
palpable
palpitation
Palsgrave
palsy
paltry
pamper
pamphlet
pan
panado
pan-cake
Pancras
pancreas
Pandecks
pander
Pandora
panegyric
pangs
panic
pannage
pannel
pannier
pant
panting
pantaloons
Pantheon
panther
pantofole
pantry
papacy
papism

P A R

papist
papistry
pappa
Papplewich
pappinefs
par
parable
parabola
parabolical
Paracelsus
paradise
paradox
paragraph
parallel
paralytic
paramour
paraphrase
paraphrastical
parafceve
parboil
parcel
parchment
pardon
pardonner
parentage
parenthesis
partitioner
parley
parliament
parliamentary
parlour
parmesan
parochial
parole
parricide
party
parlimonious
parlimony
parfley
parrip
parson

P A T

partake
partial
participate
participation
participial
particle
particular
particularly
parting
partisan
partnership
partridge
pass
pasquin
passable
passage
passenger
passibleness
passible
passion
passionate
passive
passover
passport
pastime
pastry
pastry-cook
patacoon
patcher
patch-box
patentee
pathetic
pathetical
patience
patientness
patriarch
patriarchship
patrician
patrimonial
patrimony
Patrington

P E N

patriot
patriotism
patrol
patron
patronage
patronize
patty
paucity
pave
pavilion
pause
pawn
pawn-broker
payable
payment
peacock
pear-main
peasant
pebble
peccadillo
peccavi
pectoral
peculiar
pedagogue
pedantic
pedigree
pedo-baptism
peerdom
peevish
peevishness
Pegasus
Pelagians
pelican
pel-mel
pelt-monger
Pembroke
Pembroke
penal
penalty
penance
pence

P E R

pencil
pendant
Pendennis-Castle
pendulum
penetrable
penetrate
penetration
Penguin
peninsula
Penistone
penitent
pen-knife
pennant
penniless
Pennystone
Pennyfont
pennyroyal
Penruddock
Penryn
Penance
pension
pensionary
pensive
pensiveness
pentagon
pentateuch
Pentecost
penurious
pepper
peradventure
peragration
perambulation
perceive
perception
perch
percolation
perdition
perduration
peregrination
peremptory
peremptorily

P E R

perennial
perfect
perfection
perfidious
perfidy
perforate
perforce
perform
perfume
perfunctory
perhaps
pericranium
perilous
period
periodical
peripatetic
periphery
periphrastically
perish
perishableness
perjure
perjury
periwig
periwinkle
permanent
permission
permit
permutation
pernicious
peroration
perpendicular
perpetrate
perpetual
perpetuation
perpetuity
perplex
perquisites
Persbridge
Perishore
Persia
persecute

P H I

perseverance
persevere
persist
personable
personage
personality
personate
perspective
perspicuity
perspicuous
perspiration
persuasive
persuasion
persuasiveness
pertain
pertinacious
pertinence
pertinent
perturbation
Peru
pervade
perverse
pervert
pervicacious
Peruvian
pestilence
petardeer
Peterborough
Peter-Church
Petersfield
Petherton-South
Petherton-North
petrification
pettifogger
pettulancy
phantastical
Pharisee
pharmaceutic
philanthropy
Philip's-Norton
philologist

P O M

philosopher
philosophical
phlebotomize
phlegmaticness
Phosphorus
phrase
Phrygian
physic
physognomy
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Pickering
Picts
pierce
pigmy
pilchard
plant
plantation
pleasure
pliant
plough
plumb
plunder
Plymouth
pneumatical
poach
pocket
poetry
poinant
political
politician
pomander
pome-citron
pomiferus
pommel

P U E

pompous
pond
ponderous
Pontepool
pontificate
Pontepolen
pope
popinjay
porcupine
pork
portcullis
porter
Portsmouth
positive
possession
postage
posterior
posthumous
posture
potentate
practicable
pragmatical
praise
prawn
preacher
precarious
precedence
predestinate
pre-eminence
preference

preposition
presbyterian
public
pudder
puerility

P U R

puffing
pugil
puissant
pulchritude
Pulford
Pulham
Pulhely
pullet
pulmonery
pulpit
pulsation
pulverization
pumice
pummel
pumpkin
punch
punchanello
punchion
punctilio
punctuation
puncture
pungency
pungently
punger
punic
punish
punishment
punk
puppet
puppy
purblind
purchase
purgance
purgatory
purification
puritanism
purling
purloin
purport
purpose

P Y X

purring
purser
purslain
pursuance
pursuit
pursuivant
Purton
purvey
purveyance
purulent
push-pin
pusillanimity
puss
pustulous
put
putanism
putative
putid
put-off
putter
putrefaction
putresce
putrid
putridness
puttock
putty
puzzle
pybald
pyc
pygmy
pylorous
pyramid
pyramidal
pyramidiod
pyromancy
pyrotachny
Pythagoras
Pythagorean
Pythoness
pyx

QUA

Quadragessima
 quadragesimal
 quadrangle
 quadrangular
 quadrant
 quadrantal
 quadrat
 quadrate
 quadratic
 quadratrix
 quadrature
 quadrimonial
 quadripartite
 quadripartition
 quadrifysyllable
 quadrivial
 quadruple
 quadruplication
 quaffer
 quag-mire
 quail
 quaint
 quaintly
 quaintness
 quake
 quaker
 quakerism
 qualification
 qualifie
 qualifying
 quality
 qualm
 qualmsness
 quandary
 quantity
 quarectian
 quarrel
 quarreller
 quarrelled
 quarrelling

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 quarrellsomeness
 quarry
 quart
 quartan
 quarter
 quarter-day
 quarteridge
 quarterer
 quarterly
 quarter-master
 quarter-round
 quarter-sessions
 quatern
 quarter-staff
 quarto
 quash
 quaver
 quean
 queen
 Queenborough
 queer
 queerness
 quell
 queller
 quench
 quenchable
 quencher
 querent
 querist
 querk
 querulous
 query
 quest
 quest-man
 question
 questionable
 questionableness
 questionist
 questionless
 questor

QUO

quibble
 quick
 quicken
 quickly
 quickness
 quicksand
 quickset
 quicksilver
 quick-sighted
 quick-witted
 quicky-tree
 quid
 quiddany
 quiescence
 quiescent
 quiet
 quieter
 quietism
 quietist
 quietly
 quietness
 quill
 quilt
 quince
 quincunx
 quinsy
 quint
 quintain
 quintal
 quintessence
 quintessential
 quintil
 Quintilian
 quire
 quirister
 quit
 quit-claim
 quite
 quit-rent
 quiver
 quoted

R A M

R A V

R E C

R

Rabbi
 Rabbin
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 race
 racket
 rackoon
 radiancy
 radiant
 radicalness
 radical
 radicate
 raddish
 radius
 Radnor
 raff
 raffle
 rage
 rag-bolts
 raggamuffian
 ragged
 Ragland-Castle
 rag-man
 ragoo
 rail
 railery
 Raimund
 rainbow
 rain-deer
 raip
 raise
 rake
 rake-hell
 rakish
 Raleigh
 Ralpho
 ramazan
 ramble
 ramage
 Ramish
 rammer

Ramsbury
 Ramsey
 ram's-head
 rancid
 rancour
 Randal
 random
 ranger
 rankness
 rankly
 ransom
 ransomer
 rantipole
 rapacious
 rapid
 rapine
 raparee
 rapfody
 rapture
 rarely
 rarity
 rascal
 rascally
 rase
 Rasen-Market
 rashness
 razor
 ratafia
 rather
 ratification
 ratife
 rational
 rats-bane
 rattle
 rattle-snake
 ravelin
 Raven-glass
 ravenous
 raving
 raving-mad
 ravisher

raze
 reach
 re-action
 readiness
 Reading
 re-admission
 re-admit
 real
 realize
 realm
 re-animate
 re-ascend
 reaper
 rear guard
 reason
 re-assemble
 re-assume
 re-baptize
 rebate
 rebatement
 rebel
 rebellious
 rebound
 rebuff
 rebuild
 rebuke
 recal
 recant
 recantation
 recapitulate
 recede
 receivable
 receiver
 receiver-general
 recent
 recentness
 recess
 Reche
 recipe
 reciprocal
 reciprocate

RED

recital
 recitativo
 recite
 reciter
 reckoning
 reclaim
 recline
 recognition
 recognize
 recognizer
 recoil
 recollect
 recollection
 recompence
 recommend
 recommendation
 recompense
 recompose
 reconcile
 reconcileable
 record
 recorder
 recover
 recoverable
 recount
 recreate
 recruit
 rectangular
 rectify
 rector
 rectory
 Reculver
 recumbence
 recumbent
 recurrent
 recussion
 Redborn
 Redbridge
 reddish
 redeem
 redeemer

REL

re-deliverance
 Redford
 ridiculous
 redouble
 redound
 Redruth
 Red-sea
 reduction
 redundant
 re-edifice
 re-entrance
 re-establish
 re-examination
 reference
 refinement
 reflexion
 reformation
 refactory
 refresh
 refulge
 refusal
 regain
 regality
 regard
 regeneration
 regiment
 region
 register
 regret
 regular
 rehearse
 reject
 reign
 re-imbark
 rejoin
 rejoice
 relation
 release
 relent
 relief
 religion

RYE

reluctant
 remain
 remarkable
 remedy
 remember
 remit
 remnant
 remonstrate
 remorse
 removeable
 rencounter
 rendezvous
 renegade
 renovation
 renounce
 renown
 rent
 repair
 reply
 reprint
 reproach
 reproof
 repute
 resemble
 resolve
 resolute
 resort
 rest
 rheumatism
 rich
 riddle
 ride
 river
 robe
 rogue
 Rome
 royal
 rude
 run
 rush
 Rye

S A L

S

Sabellians
 Sabines
 fable
 fabre
 Sabridgworth
 sacredotal
 sack-cloth
 sacrament
 sacred
 sacrifice
 sacrilege
 sadden
 saddle
 Saddleworth
 Sadducee
 safe-conduct
 safeguard
 saffron
 Saffron-Walden
 sagacious
 sagely
 Sagittary
 sainfoin
 salamander
 salary
 sale
 sales-man
 salique
 Salisbury
 saliva
 salivate
 Salkeld
 sally-port
 salmigundy
 salmon
 Saltash
 salter
 Saltfleet
 salt-petre
 salvage

S A T

salubrious
 salver
 salvo
 salutary
 Samaria
 Samaritan
 Samech
 samphire
 sampler
 sanctification
 sanctimony
 sanction
 sanctuary
 Sanbach
 sandbag
 sand-blind
 Sandbury
 sand eels
 Sandgate-Castle
 Sandhurst
 sandlin
 Sandown-Castle
 Sandwich
 sandy
 Sandy-Chapel
 sanguin
 Sanhedrim
 santer
 saplessness
 sataband
 Saracen
 sarcasm
 sarcastically
 sarfenet
 Sar-street
 saffrafas
 Satan
 satchel
 satellites
 satiate
 satiated

S C A

satisfaction
 fatisie
 fatten
 Saturday
 Saturn
 Saturnine
 satyr
 satyrically
 satyrift
 savageness
 sauce-box
 saucer
 sauciness
 sausage
 save-all
 saving
 saviour
 saunter
 savory
 Savoy
 Savoyard
 Sawley
 Sawthey
 Saxmundham
 Saxon
 Saxony
 scab
 scabbard
 scabbed
 scabbiness
 scaffold
 scalado
 scalding-hot
 scalp
 scamper
 scandal
 scandalous
 scantiness
 scar
 scaramouch
 Scarborough

S C R

scarcity
 scare-crow
 scarlet
 scatter
 scavenger
 skeleton
 scene
 scenography
 sceptic
 scepter
 scheme
 schism
 scholar
 scholastic
 scholast
 school
 school-divine
 schoolman
 science
 scimeter
 scirrhus
 scissors
 scoffers
 scold
 scolding
 scollop-shell
 scönse
 scooper
 scorbutic
 score
 scornful
 scorpion
 Scotch
 Scotland
 scoundrel
 scout
 scrappy
 scramble
 scrap
 scraper
 scratches

S E C

screek
 scribe
 scriptural
 scripturist
 scrivener
 scrofulous
 scrutinize
 stud-away
 sculk
 scull
 scullion
 sculpture
 scum
 scupper-hole
 scurrilous
 scurviness
 scutcheon
 scynitar
 Seythia
 Scythian
 scythe
 sea-chart
 sea-faring
 Seaford
 sea-green
 seal
 seamster
 Sean
 sea-port
 search
 fear
 fear-cloth
 Searn
 Searn-Abby
 seasonable
 Sebastian
 secant
 secession
 seclusion
 secondarily
 secret

S E N

secretary
 sect
 sectarian
 section
 secularity
 secureness
 sedan
 sedate
 Sedber
 Sedbury
 Sedgefield
 Sedgeswick
 sediment
 seditious
 seducer
 seduction
 seek
 seem
 seen
 seethe
 seize
 seldom
 select
 self
 selfish
 self-evident
 seivage
 semicircle
 semicolon
 seminal
 semi-vowel
 senate
 send
 seniority
 sen night
 sensation
 sense
 sensitive
 sensory
 sent
 sentence

S H O

shallow
 shaloon
 shambles
 shame-fac'd
 sharp
 sharper
 sharp-sighted
 sharp-witted
 shatter
 shaver
 Shaw-Cross
 Sheals N. and S
 shear-man
 sheep-cote
 sheepishness
 Sheffield
 shelf
 Shepham
 shepherd
 shepherdess
 Sherborn
 sheriff
 sherry
 Sherston
 shew-bread
 shield
 shifter
 shilling
 Shiloh
 shin-bone
 shingle
 shipwash
 Shipwrack
 shitten
 shuttle-cock
 shop-keeper
 shop-listing
 • Shoreham-New
 short-sighted
 shoulder
 shoulder-knot

S K I

Shrawarden
 shrewdly
 Shrewsbury
 shrivell'd
 shrubbishness
 shiness
 Sicilian
 Sicily
 sickness
 side-board
 sideral
 Sidland
 Sidmouth
 sieling
 sightless
 signal
 signet
 signification
 signifie
 Silchester
 silentness
 sillabub
 silliness
 Silverton
 silver-smith
 simonical
 simper
 simpleton
 simulation
 sincereness
 finewiness
 singleness
 singularity
 firenizing
 Sittingborn
 Sittingham
 sixteenthly
 skegger-trout
 Skellingthorp
 skepticalness
 skilfulness

S P I

Skinninggrave
 Skirking
 skirmisher
 skittishness
 sky-colour
 slab
 slanderous
 slavishness
 Sleaford
 sleeveless
 slighthead
 slipperiness
 sloe-worm
 slothfulness
 sluggard
 smackering
 smectymnuans
 smitter
 Smokington
 snap-dragon
 sneakingness
 Socinianism
 solemnization
 solicitude
 Solomon's-seal
 Somersetshire
 songster
 sophistical
 sordid
 South-Moulton
 Southwold
 spacious
 spangle
 Spaniard
 speaker
 specific
 spectator
 speech
 Sphinx
 Spilsby
 spinage

S P R

S Q U

S T A

spinal
 spinet
 spinner
 spinster
 spire
 spirit
 spiritual
 spiritualness
 spit
 spire
 spiteful
 spittle
 splash
 splatsh
 splay footed
 spleen
 splendid
 splendor
 splenetic
 splent
 splice
 split
 spoil
 spoke
 spokesman
 spoliation
 spondee
 sponfal
 spontaneous
 spool
 spoon
 sport
 sportful
 spot
 spotless
 spouse
 spout
 sprain
 sprat
 sprawl
 spray

spread
 sprig
 spright
 spring
 spring-tide
 sprinkle
 sprit sail
 sprout
 spruce
 sprung
 sprunt
 spud
 spue
 spume
 spun
 sponge
 punk
 spur
 spuriousness
 spurkets
 spurn
 spur-rial
 spurt
 spy
 squab
 squabble
 squadron
 squalled
 squalley
 squander
 square
 squareness
 squash
 squat
 squawl
 squeak
 squeal
 squeamish
 squeeze
 squib
 squill

squinancy
 squint-ey'd
 squire
 squirt
 St.
 stab
 stable
 Stabridge
 stack
 Stafford
 stage
 stagger
 stagnate
 Stagarite
 staid
 stain
 stairs
 stake
 stale
 stalk
 stall
 Stamford
 stamp
 Stanbridge
 stanch
 stand
 standish
 stang
 Stanford
 Stanhope
 stank
 stannary
 Stanton
 stanza
 stapple
 starboard
 starch
 stare
 staring
 starry
 start

S T I

startup
 starve
 state
 statesman
 stationer
 statue
 statute
 slave
 stay
 stead
 steak
 steal
 steam
 Stebbing
 sted/salt
 steed
 steel
 steep
 steeple
 steer
 steerer
 stem
 stench
 step
 step-father
 step-mother
 steril
 sterling
 stern
 stew
 steward
 stickle
 sticky
 stiff
 stiffle
 stigmatical
 stile
 still-born
 Stilton
 stimulate
 sting

S T R

stink
 stint
 stipend
 stipulate
 stir
 stirrup
 stitch
 stiver
 stock
 stockings
 Stockton
 stoic
 Stoke
 stole
 stomach
 stomacher
 Stone
 flood
 stook
 stool
 stoop
 stop
 store
 stork
 storm
 story
 stote
 stove
 stout
 stowage
 straddle
 straggle
 straight
 strain
 strait
 strake
 strand
 strange
 stranger
 strap
 Stratton

S T U

straw
 stray
 streak
 stream
 street
 strength
 strenuous
 stress
 stretch
 Stretham
 strew
 stricken
 strictness
 stride
 strife
 strike
 string
 stripe
 strive
 stroke
 strole
 strond
 strong
 struck
 struggle
 trumpet
 stung
 stubbed
 stubble
 stubborn
 stuck
 stud
 student
 studdy
 stuff
 stumble
 stunt
 stupenduous
 stupid
 stupify
 stupration

S U P

S Y N

T A N

Sturbridge
 Sturminster
 stutteringly
 stypticness
 subtraction
 subaltern
 sub consequence
 subdivision
 subdue
 subjection
 subjunctively
 sublieutenant
 sublimation
 submerſion
 ſubmiſſiveness
 ſubordinateness
 ſubſcription
 ſubſervientneſs
 ſubſtantialneſs
 ſubterraneous
 ſubtraction
 ſuccedaneous
 ſucceſſfulneſs
 ſuccinctneſs
 ſucculentneſs
 ſuccumbent
 ſudoriſicneſs
 ſufficientneſs
 ſuffamigation
 ſuitableneſs
 ſulphurous
 ſummarineſs
 ſumptuousneſs
 ſunderland
 ſuperabundance
 ſuperannuation
 ſupereminence
 ſuperexcellēt
 ſuperſticialneſs
 ſuperfluouſneſs
 ſuperintendent

ſuperlativeness
 ſupernumerary
 ſuperſtitiousneſs
 ſupervention
 ſuppletory
 ſupportableneſs
 ſuppreſſor
 ſupramundane
 ſupremeness
 ſureneſs
 ſurgeon
 ſurpaſſingneſs
 ſurround
 ſuſpect
 ſuſpiciouſneſs
 ſuſtenance
 ſwagger
 ſwarm
 ſwear
 ſweep-ftake
 ſweet-heart
 ſwept
 ſwimmer
 ſwine-herd
 ſwiniſhneſs
 ſwitch
 Switzerland
 ſwordſman
 ſycophant
 ſyllabically
 ſyllogiſtically
 Sylva
 Sylveſter
 ſymbolical
 ſymmetry
 ſympathetic
 ſympathize
 ſymphony
 ſymptom
 ſynagogue
 ſynchroniſm

ſyncopation
 ſynod
 ſynodical
 ſynonymous
 ſynopſis
 ſyntax
 ſynthesis
 ſynthetical
 ſyringe
 ſyrup
 ſyſtem
 ſyſtole

T

Tabernacle
 tablature
 tabular
 tacking
 Tadcaſter
 Taddington
 Tafford-Bridge
 tag-rag
 tailor
 Talbot
 tale bearer
 talisman
 talkative
 tallow
 Tallow-down
 tally-man
 Talmud
 Talmudical
 Talyſarn
 tamarind
 tamely
 Tammuz
 tamper
 Tamworth
 Tangier
 Taphill
 tankard
 tantalize

T E N

T H I

T I M

tantivy
 tapestry
 tapester
 tarantula
 target
 tarnish
 tart
 tartane
 Tartar
 Tartary
 tasteless
 tatterdemallion
 tattoo
 taverner
 Tavestock
 tantalizingly
 tantalogical
 tantology
 Taunton
 Taunton-bishop's
 tawdry
 taxation
 teachable
 team
 technology
 tedious
 telescope
 temperate
 tempest
 templar
 temple
 temporal
 temporize
 tenable
 tenacious
 tenantable
 Tenbury
 Tenby
 tendency
 tender-hearted
 tenderly

tenderness
 tenement
 Teneriff
 Tenterden
 tent-wort
 Teraphim
 termagant
 termination
 terraqueous
 terrestrial
 terrible
 terrific
 Terring
 territory
 terror
 testaceous
 testament
 testific
 testimonial
 testiness
 Tetbury
 Tettsworth
 Tettershall
 Teutonic
 Tewksbury
 texture
 Thames
 thankfulness
 theatre
 theme
 Theocracy
 theologian
 thereafter
 thereupon
 thermometer
 thermoscope
 Therston
 Thetford
 thicken
 thicket
 Thickham

thief
 thievishness
 thimble
 thinker
 thirstiness
 thistle
 Thong-Castle
 Thorn
 thornback
 Thornbury
 Thorncomb
 thorough
 Thorp
 thoughtful
 thousand
 thraldom
 thrasher
 threadbare
 threefold
 Threlkeld
 thresher
 throng
 throttle
 throwster
 Thummim
 Thursday
 Thurston
 thwart
 Tickhall
 ticking
 tickle
 tick-tack
 St. Tiddy
 tidings
 tightness
 Tilbury
 tillage
 tilt-boat
 tilt-yard
 timbrel
 timorous

T O W

T R A

T Y P

timorousness
tinker
Tinmouth
tinsel
tirewoman
Titchwoman
titillation
tit mouse
Tiverton
tobacco
Tocester
Tockington
together
toilsome
toilsomeness
Toledo
tolerable
toleration
Toll booth
tongue ty'd
tooth-ach
toothsome
topaz
Topcliff
toper
Tophet
topography
Topsham
topsy-turvy
torment
torrent
Torrington
torture
tory
St. Toffel
Totness
touch stone
toughly
tournament
toward
township

toy-man
tractable
tractate
tradesman
trade-wind
tradition
traduce
trage-comedy
trage-comical
tragical
train-bands
train-oil
traiterous
tranquility
transaction
transcend
transcribe
transcript
transfer
transfiguration
transfigure
transfuse
transgress
transgressor
transient
transition
transistoriness
translation
transmigration
transmography
transmutable
transparent
transpiration
transpire
transplant
transport
transporter
transpose
transposer
transposition
transubstantiation

transverse
trash
Travegarn
traveller
treacherous
treachery
treasonable
treasurer
Tregaron
Treleigh
tremble
trepanner
trepidation
trepidity
Threshevimick
Trevilan
tribulation
tribunal
trickish
triennial
triflingly
Trigney
trigonometry
Trinitarians
Trinity
Tripoly
troublesome
Tubal
Tuddington
Tudworth
Tuilleries
Tukesbury
tulip
tumour
tumourous
Tunbridge
turnpike
turnpike-gate
Tweed
typographical
typographically

V A S

typographer
typography
tyrannical
tyrannically
tyrannicalness
tyrannicide
tyrannize
tyrant
tyranny
tyro

V and U

Vacuum
vade-mecum
vagabond
vagary
vagrant
vain-glorious
vain-gloriousness
valedictory
valetudinary
valiant
valid
validity
valorous
valuable
vambulance
Vandal
vane
van-guard
vanish
vanity
vanquish
vaporation
vapour
vapouring
variable
variance
variation
variety
varlet
vassal

V E R

vast
Vatican
Vavasor
Vaudois
vaulter
vaunt
veal
vegetable
vehemence
vehicle
vellum
velocity
velvet
venal
venerable
veneration
venereal
venery
Venetian
vengeance
venial
Venice
venom
venomous
ventilation
venturesomeness
venturous
Venus
veracity
verb
verbal
verbatim
verberate
verberation
verbose
verboseness
verbosity
verdant
verdigrise
verderer
verditer

V I A

verdure
verger
verification
verjuice
vermicular
vermiculation
vermillion
vermin
vernacular
vernal
verse
versicle
versification
versifie
vertex
vertiginous
vertigo
vervain
very
vesicle
vesicatory
vespers
vessel
vesses
vest
Vesta
Vestal
vestible
vestiger
vestment
vestry
vestry-man
vesture
vetches
veteran
vex
vexation
vexatious
ugly
ugliness
vial

VIN

VIS

UNA

viands
 viaticum
 vibrate
 vibrating
 vibration
 vicar
 vicarage
 vicarship
 vice
 vicious
 vice-admiral
 vice-chancellor
 vice-gerent
 vice roy
 vice royalty
 vicinity
 vicinage
 vicissitude
 victim
 victor
 victoriously
 victory
 victualler
 victuals
 Vienna
 view
 vigil
 vigilant
 vigorous
 vigour
 vileness
 vilific
 village
 villager
 villainous
 villainously
 villainy
 Vincent
 vincible
 vindication
 vindictive

vine
 vineyard
 vinegar
 vinew
 vinet
 vinous
 vintage
 vintner
 vintress
 vintry
 violable
 violate
 violation
 violence
 violent
 violentness
 violin
 violencello
 viper
 virago
 virgin
 virginals
 Virginia
 virginity
 virid
 virile
 virility
 virtual
 virtuoso
 virtuously
 virulency
 virulent
 virulently
 virulentness
 visage
 visera
 viscount
 viscountess
 viscous
 viscousness
 visibility

visibleness
 visible
 Visier
 vision
 visionist
 visit
 visitation
 visney
 visual
 vital
 vitalness
 vitiate
 vitious
 vitiousness
 vitreal
 vitreous
 vitrifice
 vivace
 vivacious
 vivacity
 Vivian
 vivid
 vivification
 vivify
 viviparous
 vixen
 vizard
 ulcerate
 ulceration
 ulcerous
 ullage
 ulnage
 ulterior
 ultimate
 Ulverston
 umber
 umbrage
 umbrella
 umpire
 unacceptable
 unaccountable

U N C

unaccustomed
 unacquainted
 unactive
 unadvised
 unaffected
 unaided
 unalterable
 unanimity
 unanswerable
 unarmed
 unnarrayed
 unassisted
 unattentive
 unattainable
 unavoidable
 unawaked
 unawares
 unbecoming
 unbegotten
 unbelief
 unbeliever
 unbend
 unbidden
 unblamable
 unblind
 unbloody
 unboiled
 unbooted
 unbound
 unbowel
 unbridled
 unbuilt
 unbutton
 incapable
 uncertain
 unchangeable
 uncharitable
 unchaste
 unchristened
 unchurched
 uncircumspect

U N D

uncivil
 unclasp
 unclean
 unclothe
 uncomfortable
 uncomely
 uncommon
 unconcerned
 unconceivable
 uncondemned
 uncomfortable
 unconquerable
 unconquer'd
 unconscionable
 unconstant
 unconstrained
 uncontestible
 uncontrollable
 uncorrected
 uncover
 uncourteous
 uncrowned
 unction
 uncultivated
 uncultomed
 undaunted
 undecided
 undefiled
 underling
 undermine
 understand
 undertake
 undervalue
 undervalument
 under-written
 undeserved
 undetermined
 undisciplined
 undistinguishable
 undivided
 undoubted

U N F

undress
 unduly
 undutiful
 uneasy
 uneloquent
 unemployed
 unequal
 unerring
 uneven
 unexecuted
 unexpected
 unexpert
 unexpressible
 unfairly
 unfaithful
 unfashioned
 unfasten
 unfeigned
 unfenced
 unfinished
 unfitted
 unfold
 unformed
 unforeseen
 unfortified
 unfortunate
 unsound
 unfriendly
 unfruitful
 ungainful
 ungarnished
 ungenteel
 ungird
 ungodliness
 ungovernable
 ungracious
 ungrateful
 unguent
 unhabitable
 unhandsomely
 unhandy

U N M

unhappily
 unhappy
 unharbour
 unharnes'd
 unhealthful
 unhealthy
 unhealthily
 unheard
 unholy
 unhook
 unhorse
 unhusbanded
 unicorn
 unison
 unitarian
 universe
 unjust
 unkind
 unknown
 unladed
 unlamented
 unlawful
 unlearn
 unlearned
 unleavened
 unlicensed
 unluckiness
 unlimited
 unload
 unloose
 unlovely
 unlucky
 unmanly
 unmanliness
 unmannerly
 unmarried
 unmasked
 unmatch
 unmeasurable
 upmeetness
 unmerciful

U N R

unmindful
 unmolested
 unmovable
 unmould
 unnatural
 unnecessary
 unneedful
 unoccupied
 unopposed
 unorderedly
 unpaid
 unparallel'd
 unpardonable
 unpeaceably
 unpeople
 unperceivable
 imperfect
 unpleasing
 unpolished
 unpolled
 unpremeditated
 unprejudiced
 unprepared
 unprevented
 unprofitable
 unprosperous
 unprovided
 unpruned
 unpunished
 unpurged
 unquenched
 unquiet
 unravel
 unready
 unreasonable
 unrebukable
 unreclaimed
 unreformed
 unregarded
 unrelenting
 unremitted

U N S

unremoved
 unrepaired
 unresolved
 unrespectful
 unrevenge'd
 unrewarded
 unrighteous
 unruly
 unsaddle
 unsafe
 unsaid
 unsaluted
 unsanctified
 unsatisfactory
 unsavory
 unscriptural
 unsealed
 unsearchable
 unseparable
 unserviceable
 unsettled
 unshaded
 unshaken
 unshaven
 unshod
 unskilful
 unsnared
 unsociably
 unfold
 unsolid
 unsound
 unspeakable
 unspent
 unspotted
 unstable
 unstained
 unsteady
 unstirred
 unstop
 unstring
 unsuccessful

U N W	U R G	W A L
unsuitable	unwilling	urgent
unsure	unwind	urinal
untaken	unwise	urine
untamed	unworn	urn
untangle	unworthy	Ursulines
untanned	unwound	usage
unteachable	unwritten	usance
untenable	unyoke	use
unthankful	vocabulary	useful
unthinking	vocal	usher
unthoughtful	vogue	Usk mouth
unthrifily	voice	usual
until	void	usurp
untilled	voider	usurpation
untimely	voidness	usurer
untoward	volacious	usury
untractable	volatile	utensils
untried	volition	utile
untrimmed	voluble	utmost
untrue	volume	Utopian
untruth	voluntary	utter
untrustiness	voluntier	vulnerable
untunable	vomit	vulnerary
unvail	voracious	vulpine
unversed	votary	vulture
un-uniform	votive	uvula
unusual	voucher	Uxbridge
unusually	vouchsafe	uxorious
unutterably	vow	uxoriously
unwarily	vowel	uxuriousness
unwary	voyage	Uzziah
unwashen	upbraid	Uzziel
unwasted	Uphilhaven	
unwater'd	upright	W
unwearied	uproar	Waggoner
unweariedness	upside	Wainfleet
unwedded	upstart	wainscot
unwelcome	Upton	waiter
unwholsome	upward	waitard
unwholsomeness	urbanity	Wakefield
unwieldiness	urge	wakeful
		Wales

W A S	W A Y	W E D
Walfleet	waft	way-wood
Walgrove	wafte	we
wall	wafffulnefs	weak
Wallaffe	Wat	weaken
Walloons	watch	weakly
wallop	watcher	weaknefs
wallow	Watchet	weal
wallowifh	watchful	weald
Walmer	watchfully	wealth
walnut	watchfulnefs	wean
Wallingham	water	weaning
Walton	water-meafure	weapon
wamble	water-poife	weaponlefs
wander	waterage	weapon-flave
wanton	watergang	wear
wantonnefs	waterifh	wearied
war	waterifhnefs	wearily
Warbridge	watery	wearinefs
warden	Watford	wearifome
wardenship	Wath	wearifomenefs
wardmote	Waring-ftreet	weary
wardrobe	Watlington	weafand
Ware	wattle	weafal
warfare	Wattleton	weather
warinefs	Watton	weather-be
warm	wave waver	weather board
warmnefs	waveringly	weather-cock
Warnford	wavy	weather-gage
warrant	wawl	weather glafs
warranter	wax	weather wife
Warrington	waxen	weave
Warfop	Waxham	weaver
Warwick	way	web
Warwickfhire	wayfaring	webfter
wafh bowl	Wayhill	wed
wafp	waylay	wedding
wafpifh	way layer	wedge
wafpifhly	way laying	Wedley
wafpifhnefs	St. Waynard's	wedlock
waffel	wayward	Wedmore
waffelers	way-wifer	Wednesday

W E N

W H E

W H I

weed	Wendover	wheaten
weeder	Wenlock	Wheatly-Bridge
Weedom	went	Wheatly-North
week	Wentbridge	wheelde
weekly	wept	wheelder
weel	were	wheel
ween	Weremouth	wheelage
weep	were-wolf	wheelbarrow
weeper	wesand	wheeler
weeping	Wesel	wheelwright
weevil	West	wheeze
weigh	Westbury	whelk
weight	Westchester	whelm
weightily	westerlinefs	whelp
weightinefs	westerly	whelpish
weighty	western	whelve
Welch	Westlow	when
Welchpool	Westminster	whence
welcome	Westmoreland	whensoever
welcomnefs	Weston	where
weld	Weston-Zaland	whereas
weldingheat	Westphalia	whereby
welkin	Westram	wherefore
well	westward	wherein
well-a day	wet wether	whereof
well-born	Wetherby	wheresoever
well-bred	wetnefs	whereto
well-hole	wet-shod	whereupon
Wellinborough	wetted	wherewith
Wellington	wey	Wherewell
Wellow	Weymouth	wherret
Wells and Palace	whale	wherry
well-fer	wharf	whet
welt	wharfage	whether
welter	wharfinger	Whetstone
wemb	Whaley	whew
Wem	what	whewyish
Wemworthy	Whateley	which
wen	Whatton	Whitchurch
wench	wheal	Whicknor
wencher	wheat	whiff

W H I

whiffler
 whig
 whiggishness
 whiggish
 while
 whiles
 whilom
 whilst
 whim
 whimsical
 whimsically
 whimsicalness
 whimsy
 whim-wham
 whindle
 whine
 whip
 whipper
 whipsaw
 whipster
 whipstaff
 whirl
 whirl-bone
 whirligig
 whirl-pool
 whirl-wind
 whish
 whisk
 whisker
 whiskingly
 whisperer
 whispering
 whist
 whistle
 whistler
 whit
 Whitechurch
 Whit-down
 white
 white-heart
 white-liver'd

W H U

white-meats
 whiten
 whiteness
 White-Parish
 whither
 whithersoever
 whitening
 whitish
 Whitland
 whitlow
 Whitminster
 Whittable
 whittler
 Whitsunday
 Whitsuntide
 whittle
 Whittlesey
 Whitton
 Whittingham
 Whitwell
 whiz
 who
 whole
 wholly
 wholsom
 wholsomly
 wholsomeness
 whomsoever
 whoo
 whoop
 whore
 whoredom
 whoremonger
 whorish
 whorishly
 whorishness
 whorlbat
 whorle
 whose
 whose-soever
 whur

W I L

why
 wick
 wicked
 wickedly
 wickedness
 wicker
 wicket
 Wickliff
 Wickliffians
 Wickomb
 Wickware
 widdle-waddle
 wide
 widely
 widen
 wideness
 widgin
 Widington
 widow
 widower
 widowhood
 width
 wield
 wieldiness
 wieldy
 wife
 wig
 Wigan
 Wigborn
 wight
 Wighton
 Wigmore
 Wigton
 Wilcot
 wild
 wild-creature
 wilderness
 wildfire
 wilding
 wildly
 wildness

W I N

wile
 Wilfred
 wilful
 wilfully
 wilfulness
 wily
 wiliness
 wily
 wilk
 will
 William
 Willing
 willing
 willingly
 willingness
 willow
 Wilmston
 Wils-comb
 Wiltshire
 winble
 Winbleton
 wimble
 Winard
 Wincaunton
 wince
 winch
 Winchcomb
 Winchelsey
 Winchester
 wind
 wind bound
 winder
 windfal
 Windham
 windingham
 winding
 windlafs
 windless
 window
 Windsor & Castle
 Windward

W I T

Winfred
 wing
 winged
 wink
 winnow
 Winney
 Winflow
 Winsom
 Winter
 Winterborn
 winter green
 winterly
 Winterton & Ness
 wipe
 wire
 wire draw
 Wireham
 Wirksworth
 wiseacre
 Wisbich
 wisdom
 wise wisely
 wish
 wishfully
 wisket
 wisp
 wist
 wit
 Witborn
 witch
 witchcraft
 witch-elm
 with
 withal
 Witham
 Witham-South
 Witheridge
 withdraw
 wither
 Withernam
 with-hold

W O N

with holden
 within
 without
 withsay
 withstand
 withy
 witness
 wittal
 witwal
 Witney
 Wivelscomb
 wizard
 wo
 woad
 Woburn
 Woden
 woe
 woer
 woful
 wofully
 wofulness
 wold
 wolf
 wolf's-bane
 Woller
 Wollot
 Wolrich
 Wolsingham
 wolvisk
 woman
 womanishness
 womanly
 womb
 Wombwell
 won
 wonder
 wonderful
 wonderfully
 wonderfulness
 wonderment
 wont

W O R	W R E	Y A R
wood	worshipfully	wretch
Woodbridge	worshipper	wretched
wooden	Worſop	wretchedly
woodenly	worſt	wretchedneſs
Woodal	worſted	Wrexham
Woodland	worſt	wriggle
Woodley	worſt	wright
woodmonger	Worſthen	wrinkle
woodpecker	worſt	wringle
woodroof	worſt	wrinkle
Woodſtock	worſt	Wrinton
woodineſs	worſt	wriſt
woodward	worſt	wriſtband
woody	Worſton	write
woof	worſt	writer
wool	worſt	wriſt
woollen	worſt	wriſt
woolly	worſt	wriſt
woolſtaple	worſt	wriſt
Woolwich	worſt	wriſt
wope-ey'd	worſt	wriſt
Worceſter	worſt	wriſt
word	worſt	wriſt
work	worſt	wriſt
worker	worſt	wriſt
workman	worſt	wriſt
workmanlike	worſt	wriſt
workmanſhip	worſt	wriſt
Workſop	worſt	wriſt
world	worſt	wriſt
worldly	worſt	wriſt
worm	worſt	wriſt
worm-eaten	worſt	wriſt
worm-feed	worſt	wriſt
Wormſhead	worſt	wriſt
wormwood	worſt	wriſt
worn	worſt	wriſt
worry	worſt	wriſt
worſe	worſt	wriſt
worſhip	worſt	wriſt
worſhipful	worſt	wriſt
		Y
		Yatch
		yap
		yar
		yard

Y E O

yard arm
 yard-land
 yare
 Yarmouth
 yarn
 Yarrish
 yarrow
 Yatum
 yaspin
 yate
 yaw
 yawl
 yawn
 yaws
 Yaxley
 ye
 yea
 yean
 yearling
 yearly
 yeast
 yelk
 yell
 yellow
 yellowish
 yellowness
 yelp
 yelt
 yeoman
 yeomanry
 Yeovil

Y U L

yerk
 yerker
 yern
 yes
 yesterday
 yesternight
 yet
 yew
 yexing
 yield
 yieldingness
 yoke
 yoke fellow
 yoker
 yon
 yonder
 yonker
 yore
 York
 Yorkshire
 you
 young
 younger
 youngling
 youngster
 your
 youthful
 youthfully
 youthfulness
 yule
 yule-block

Z O U

yule-time
 Z
 Zabulun
 Zacharias
 Zagay
 Zandy
 zeal
 zealot
 zealous
 zealously
 zealousness
 Zechariah
 zedoary
 Zealand
 Zell
 Zelotes
 zenith
 Zephyrus
 Zereth
 zelt
 zeta
 Zeugma
 Zink
 zodiac
 zone
 zoography
 zoology
 zootomy
 zoophyte
 Zouch



A TABLE of the most familiar Proper Names of MEN and WOMEN.

A	Giles	Nathaniel
Abel	Gilbert	Nehemiah
Abraham	Gregory	Nicholas
Alexander	H	O
Ambrose	Henry	Oliver
Andrew	Horatio	P
Anthony	Hugh	Patrick
Arnold	Humphrey	Philip
Arthur	I	Peter
Austin	Jacob	R
Augustus	James	Ralph
B	John	Raphael
Barnaby	Jeffery	Raymond
Bartholomew	Jeremy	Reynold
Benjamin	Jonathan	Richard
Bernard	Joseph	Robert
C	Josias	Roger
Cæsar	Joshua	Roland
Charles	Isaac	S
Christopher	Jude	Solomon
Clement	Julian	Samuel
Constantine	L	Sampson
D	Lambert	Sebastian
Daniel	Lancelot	Sigismund
David	Laurence	Silvester
Dennis	Leonard	Simeon
Dunstan	Leopold	Simon
E	Lewis	T
Edmund	Luke	Theodore
Edward	M	Theodosius
Eleazer	Malachy	Theophilus
Elias	Mark	Thomas
F	Martin	Toby
Ferdinand	Matthias	V
Francis	Matthew	Valentine
Frederick	Maurice	Vincent
G	Michael	Urban
Gabriel	Moses	Z
George	N	Zachary
Gervas	Nathan	

NAMES of WOMEN.

A

Abigail

Alice

Agnes

Amelia

Ann

Arabella

B

Barbara

Beatrice

Betty

Bridget

C

Caroline

Catherine

Cecily

Charlot

Christian

Constance

D

Damaris

Deborah

Diana

Dinah

Dorothy

E

Eleanor

Elizabeth

Elther

F

Flora

Frances

G

Gertrude

Grace

H

Hellen

Henrietta

I

Jane

Joan

Isabel

Judith

L

Laura

Louisa

Lucy

Lucretia

M

Magdalen

Margaret

Margery

Mary

Martha

Maud

P

Penelope

Phyllis

Priscilla

Prudence

R

Rachel

Rebecca

Rosamond

Rose

S

Sarah

Sophia

Susanna

T

Theresa

U

Ursula

F I N I S.

